Levelling up the tax system

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ONWARD

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Foreword

The discussion about levelling up is dominated by discussion about spending. Parliamentarians and commentators rightly call into question why more productive regions have historically received more transport or R&D spending than poorer regions - and ask what role this has played in unbalancing our economy.

We can and we must right those imbalances. But we cannot simply spend more everywhere and, even if we could, spending on infrastructure and R&D will take years to deliver. There is another tool available to boost regional growth that should appeal to pro-market conservatives and which can deliver immediate benefits for regional households and businesses: tax reform.

We sometimes think of tax as spatially blind, but of course households and businesses differ between regions, and people behave differently in different places too, in ways that don't just reflect how rich or poor they are.

Londoners drive far less than people in the South West. People in the North East drink and smoke more, on average, than similar people in the South East. This means that some tax rises will burden some regions much more than others, while some tax cuts will benefit some parts of the country more.

For example: increasing capital allowances for manufacturing businesses, which allows firms to offset corporation tax against investments like plant and machinery, would tend to benefit the North, the Midlands and Wales most: these are the places where such investment is largest relative to GDP. So the biggest winners would be places like Warwickshire, Teesside, the West Midlands and Cumbria.

There are other taxes which are simply regionally regressive, in that they level down household income and business productivity in poorer regions.

Take council tax. Average council tax per head in London is the lowest in England, at £481, despite surging property prices in recent decades. This is a fifth lower than in much poorer regions such as the East of England and the South West, and as a share of post-tax income, Londoners pay half of what households in Yorkshire and the North East typically pay. The pattern for the lowest bands of council tax is even sharper. Because of a much higher share of Band A properties in poorer parts of the country, cutting Band A council tax would benefit over half of households in the North East, and 43% in Yorkshire, compared to just 4% of households in London.

We see a similar pattern with VAT. As a share of regional GDP, VAT receipts in the North East, the UK's poorest region, are double what they are in London, its most prosperous. More importantly, they have grown much slower in London than elsewhere over the last two decades, such that the average Londoner spends just £570 more in VAT than in 1999, while the average person in the North East spends £759 more.

We cannot ignore the regional dimension when thinking about tax policy, especially as we make difficult decisions about how to fix the public finances after the pandemic.

This calls, first and foremost, for a more transparent approach. At every Budget, the Treasury publishes distributional analysis for households, to show how much more or less households in different income brackets will pay.

The Chancellor should go one further and publish a regional distributional analysis, to show how much more or less different regions are paying. And we should go further still and think about how we use the tax system to get private sector growth going in poorer areas.

If we only look at spending and not tax, there is a risk we are trying to level up with one hand tied behind our backs.

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MP for Penistone and Stocksbridge

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MP for High Peak

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MP for North Devon

Summary of the argument

At every Budget, the Treasury and the IFS produce what is known as “distributional analysis” - detailed modelling showing the effects of tax and spending decisions on different households by their level of income.

Understanding how the effects of tax and spending changes affect households differently across the income distribution is useful. It helps ministers ensure that their fiscal decisions are borne by those households best able to bear them. However, governments have done far less to understand the *geographical* distribution of the impact of different policies.

Tax and spending choices are not geographically neutral - far from it. And distributional analysis by income only doesn’t capture a lot of geographical differences. Areas have more or less of particular industries, and radically different house prices and levels of wealth. In different places people consume different things, have different types of workers, travel around in different ways and live in differently sized households. This means that tax and spending decisions can have quite different impacts even on places with similar income levels.

Previous *Onward* papers have examined the geographical distribution of the types of spending that have most potential to boost growth. This paper looks at the other side of the ledger: the geographical impact of the tax system.

One objection to analysing the geographical effects of different taxes is that there can be a difference between the formal incidence of a tax (where it is paid) and the effective incidence (who ultimately bears the real cost). In the case of personal taxes like income tax the link between where it is paid and the local economic impact is strong. In other cases, like corporation taxes, we do need more caution. To deal with the problem that corporation tax from a large company is paid from the HQ, but its activity may be all over the country, statisticians can draw on data about how many people it employs and in which locations to allocate the tax to different regions. But this may not be a perfect measure of the effective incidence.

Another objection might be that even for personal taxes we would ideally like to know the distribution *within* regions too. Just because *in total* the people in a particular place pay a lot of, say, income tax, that doesn’t tell you what the *median* person there is paying. This sort of analysis is beyond the scope of this paper, but would be useful, particularly for the most progressive taxes like income tax. But looking at how much is paid per person or as a share of local income, as we will in this paper, gives us a rough sense of the total impact on local economies of different taxes.

The quality and depth of local and regional economic statistics in the UK has been transformed over the last five years by a major programme of investment at the Office for National Statistics, supported by the Government as part of efforts to boost growth in poorer areas. We should now bring this new data together with what we know about the geographical effects of taxes and benefits, so that we can make progress in levelling up areas which have lagged behind for many, many decades.

Conversations about levelling up quickly gravitate to discussions about spending. But free-marketeers might think that the tax system is just as important a tool for levelling up.

The regional impact of different taxes varies hugely, and does not vary simply with the average income level in that area. Some taxes like income tax, stamp duty, capital gains and inheritance are a larger share of total income in richer regions like London and the South East. But other taxes like VAT, council tax and excise duties are a larger share of income in poorer regions.

Table 1: Tax revenue as a proportion of Gross Disposable Household Income (GDHI)

	Income tax	National Insurance	VAT	Stamp Duty and capital gains	Council tax	Alcohol and tobacco	Fuel Duty	Environmental levies on business	Business rates	Corporation tax
London	18.60%	10.53%	8.50%	2.83%	1.64%	0.72%	0.68%	0.89%	3.05%	7.05%
South East	16.40%	10.05%	10.10%	2.02%	2.65%	1.27%	2.00%	0.88%	1.63%	3.62%
East of England	14.60%	10.16%	10.20%	1.58%	2.67%	1.43%	2.26%	0.63%	1.61%	3.07%
Scotland	12.00%	10.27%	11.90%	0.90%	2.29%	2.01%	2.24%	1.50%	2.48%	3.26%
Yorkshire and the Humber	11.90%	8.89%	10.60%	1.02%	3.06%	1.92%	2.72%	0.86%	2.08%	2.74%
North West	11.40%	9.47%	11.90%	0.97%	2.76%	1.94%	2.26%	0.94%	1.91%	3.33%
South West	11.40%	8.40%	10.90%	1.54%	2.96%	1.38%	2.18%	0.78%	1.58%	3.49%
West Midlands	11.40%	9.56%	11.10%	0.98%	2.65%	1.62%	2.53%	1.08%	1.81%	3.31%
East Midlands	10.60%	10.34%	14.00%	1.04%	2.62%	1.98%	2.39%	1.12%	1.53%	3.77%
North East	10.20%	9.50%	12.70%	0.66%	2.91%	2.21%	2.22%	1.05%	1.80%	2.52%
Wales	9.80%	8.91%	12.60%	0.72%	2.95%	1.88%	2.60%	0.90%	2.00%	2.55%
Northern Ireland	8.80%	8.93%	13.20%	0.51%		2.70%	2.68%	0.69%		2.62%

The relative importance of VAT and income tax is quite different between different regions. Londoners pay an average of £2,500 VAT and £5,475 income tax. But in Northern Ireland people pay £2,297 VAT and £1,533 income tax.

Different types of property tax have quite different regional effects. Transaction taxes such as stamp duty and capital gains far and away have the greatest burden in London, which contributes 8 times as much stamp duty and six times as much CGT per capita as the North East.

In contrast, council tax is regionally regressive. Average council tax per head is lowest in London (£481) and as a share of income in the capital it is a little over half what it is Yorkshire or the North East.

Excise duties weigh most heavily on the poorest regions. Per head the average person in Northern Ireland pays £469 a year in tobacco and alcohol duties combined, while in London it is just £210. Demographic trends have also meant that the capital's tobacco and alcohol duty contributions combined have fallen by 16%, the fastest fall of any region.

The different environmental levies all have very different regional distributions depending on levels of public transport use, propensity to fly, and the different industrial structure:

- Fuel duty costs people in the East of England £502, but people in London just £201. Revenue per capita fell twice as fast in London compared to the average for the rest of the UK (a 47% fall compared to 22%). This reflects trends in walking, cycling, public transport and electric vehicle use in the capital.
- In contrast, Air Passenger Duty falls most heavily on prosperous regions. It costs Londoners £151 per person and the South East £76, but people in Wales just £4. APD receipts have more than tripled in London, the South East and Yorkshire since 1999/00. Per person, APD in London rose by £96 compared to an average of £18 across other regions.
- Industrial climate change and environmental levies are different again, falling most heavily on poorer regions, with a combined cost £58 per head in the North East, and just £12 in London. As a share of income, the cost is highest in the midlands, the north and Scotland.

Looking at the trends over time we see that regional tax receipts have diverged as earnings, productivity and demographics have diverged in recent decades. The previous Onward publication "*Measuring up for levelling up*" noted that in London, income before tax and benefits grew two-thirds faster than the rest of the UK, and income before tax and benefits is now nearly 70% higher in London than the rest of the UK, up from around 30% higher in 1997. Over the last 30 years the proportion of people who are pensioners in London has declined, but increased in the rest of the country. Having been the same size as the economy of the north of England as recently as 2004, London's economy is now a quarter bigger.

This is reflected in the total tax take. In 1999/00, the three regions in the North of England collectively generated £24 billion more in taxes than London but by 2018/19 generated £6.6 billion less in real terms. This has been driven by surging income and wealth tax receipts in prosperous regions, which have increased by 55% in London, but only 8% in the rest of the UK. But as we will see again and again in this paper, there's more than one way to look at such data. London's total tax contribution is the biggest per person, but also the lowest of any region relative to GDP: 33% of its regional output, compared to more than 40% in much poorer regions such as the North East.

Then again, London's GDP partly reflects large commuter inflows, so it may be preferable to look at the tax receipts relative to the income of people who live there (GDHI). There isn't a single "right" way to view the data, and we need to look at it from all angles.

- While London generated £24 billion less in total taxes than the North of England in 1999/00 twenty years later London generates around £6.6 billion more than the North.
- In real terms, corporation tax receipts have fallen in the north. Corporation tax receipts have risen 25% in London since 1999/00, but rose fastest in the South West at 37%.
- London's VAT receipts have grown at the slowest rate of any UK region, meaning that in real per capita terms Londoners pay 30% (£570) more in VAT than twenty years ago, compared to 55% (£759) in the North East.

The final chapter moves from looking at the average effect of different taxes to modelling some changes in specific rates and thresholds. We find that:

- The regressive nature of council tax means that reform could yield significant savings for poorer areas. We model two changes: making Band A cheaper, or and Bands F-H marginally more expensive. Cutting Band A council tax would mean over half of households in the North East, and 43% in Yorkshire, would get a tax cut compared to just 4% of households in London.
- Conversely, raising bands F-H would mean that 15% of households across London and the South East would see their council tax increase, compared to just 3% in the North East.
- The effect of changes to income tax depends on which rates are changed. As a share of income, the largest gains from raising the personal allowance are seen in the north, the midlands and Wales. In contrast, changes to the additional rate primarily affect London. A cut in the additional rate leads 25 times more benefit per person in London than in Northern Ireland.

- Turning to national insurance, cutting the main rates of national insurance would have a similar effect as a share of income across the country, while cutting the additional rates would mainly benefit richer regions. Ending the tax advantages of self-employment would hit wealthier areas harder, with larger costs per self-employed person in London and the South East.
- Cuts to inheritance tax tend to benefit wealthier areas. In the case of a 1% cut to the inheritance tax rate, half the benefit would accrue to London and the south east.

This analysis suggests that different tax reforms would have markedly different distributional effects by region. Some will aid levelling up; others could actively hold back disposable income and business investment in Britain's regions. More work will need to be done by the Treasury and ONS to understand these effects. The available data is mostly at regional level and therefore obscures variation within large and heterogeneous regions and between cities and rural areas. Moreover, we have not modelled the secondary effects of tax reform on welfare or subsidies, for example in regard to Council Tax Benefit or second home discounts. Nevertheless, it is clear that tax reform is an important tool in the Government's ambitions to level up growth and opportunity

The geography of tax

We tend to think of the tax system as spatially blind. Taxes apply to individuals and companies, not places, after all. But different parts of the country contain different mixtures of individuals and companies, and their finances are impacted to varying degrees by different tax decisions.

This chapter sets out the regional distribution of tax as a whole and then the different types of tax, and the way each has changed over time.

This chapter will look at the total receipts from each of the main taxes, and shows how the overall structure of the tax system we choose - whether we seek to raise more revenue from companies or earnings or behavioural taxes or wealth taxes - has different effects on different parts of the country.

The next chapter will set out the geographic effects of some different tax choices in more detail, and will look at the marginal effects of changing particular rates and thresholds within these different taxes.

In each case we will look at receipts, receipts per head, receipts as a share of income, and receipts as a share of GDP. As we will show, choosing a different measurement sometimes gives different results, which is why we look at the regional impact of taxation from multiple angles.

Some taxes are obviously more important than others. In March 2020 the Office for Budget Responsibility forecast how much would be raised from each of the main types of tax:

Table 2: Major receipts as a share of GDP

Source: Office for Budget Responsibility

	Per cent of GDP						
	Outturn	Forecast					
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Income tax	8.9	8.8	9.0	9.1	9.2	9.2	9.3
NICs	6.3	6.5	6.5	6.6	6.6	6.6	6.7
Value added tax	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Onshore corporation tax	2.5	2.4	2.5	2.5	2.5	2.5	2.5
Fuel duties	1.3	1.2	1.2	1.2	1.2	1.2	1.2
Business rates	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Council tax	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Alcohol and tobacco duties	1.0	0.9	0.9	0.9	0.9	0.9	0.8
Capital taxes	1.4	1.4	1.5	1.5	1.6	1.7	1.8
UK oil and gas receipts	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other taxes	3.3	3.4	3.3	3.3	3.3	3.3	3.3
National Accounts taxes	33.9	33.9	34.1	34.2	34.4	34.5	34.6
Interest and dividend receipts	1.1	1.2	1.2	1.2	1.2	1.3	1.3
Other receipts	2.5	2.5	2.6	2.7	2.6	2.6	2.6
Current receipts	37.5	37.7	37.9	38.0	38.3	38.4	38.5

Notes: Capital taxes includes capital gains tax, inheritance tax, property transaction taxes and stamp taxes on shares

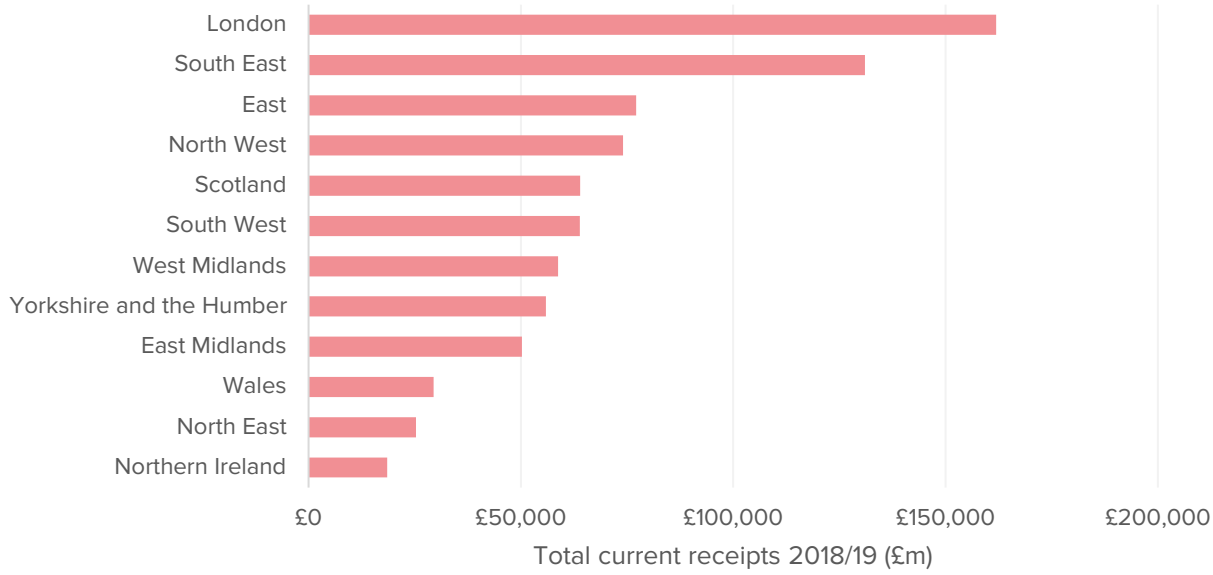
1. Overall tax receipts

Looking at these total receipts by region, we find that London generates the most tax revenue of any region in the UK, contributing £162 billion in 2018/19. This is £1 in every £5 of tax receipts accruing to the Exchequer. The South East is close behind at £131 billion, meaning that 36% of UK tax revenue is now raised in these two regions alone, considerably more than the 27% of the population who live in these regions.

Total tax receipts in London (excluding oil and gas revenues) are five times higher than Wales, six times higher than the North East, and nine times higher than Northern Ireland, which generate £29.5bn, £25.3bn, and £18.5bn, respectively. Unsurprisingly the tax system reflects not just differences in population but differences in personal income and wealth, levels of business activity, and productivity in the wider economy.

Figure 1: Total receipts, 2018/19

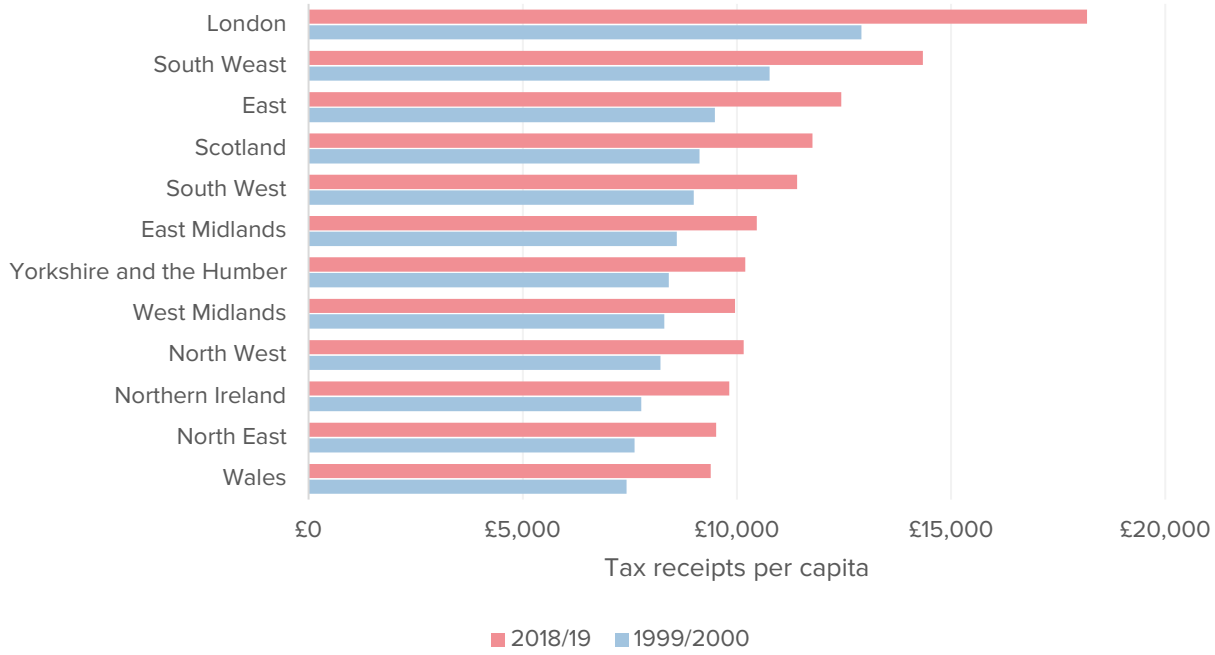
Source: ONS (2020), Country and Regional Accounts, Onward analysis



This reflects the consolidation of London and the greater south east's role in the tax system in the last twenty years. Since 1999/00, London's annual revenue has increased by 75%, equivalent to £69 billion in real terms. This is more than twice the tax receipts growth in the north of England, for example. In fact, London generated £24 billion less in taxes than the North of England in 1999/00, but twenty years later, in 2018/19, London generated around £6.6 billion more than the North.

This contribution has outpaced the growth of London's population, meaning receipts *per head* have grown in the capital too. In 2018/19, Londoners paid £5,269 more in per capita terms than they did in 1999/00, a 41% real-terms increase. This is the largest proportional increase of any region. The Midlands saw half the growth rate of the capital, at 21%.

Figure 2: Per capita tax contribution, 2018/19 and 1999/2000[1]



Looking at absolute and per capita receipts gives the impression that London is relatively generous in its tax contribution. But as we know London also has a much more prosperous economy. Looking at tax receipts relative to output, however, London contributes less in taxes as a share of GDP than any other region.

Tax receipts generated in London are equal to 33% of the region's GDP. This is the lowest relative tax contribution of any region, and considerably less than regions such as the East of England (41%), South West, North East and East Midlands (all 40%) and the more prosperous South East (42%). The most likely explanation of this is that London's GDP is inflated by inward commuting of people who live elsewhere (as discussed in the previous *Onward* report, "Measuring Up")

To avoid this distortion, we can look at London's tax receipts as a share of the income of people who live there. We see that the region contributes proportionally more than any other. Total taxes are equal to 62% of disposable income in London. Receipts are highest where GDHI is highest, in London, the South East and Scotland. The South West and West Midlands pay the least, at 55% in both cases. Using this measure, just seven percentage points separates the highest and lowest regions.

Figure 3: Total tax receipts as a share of GDHI

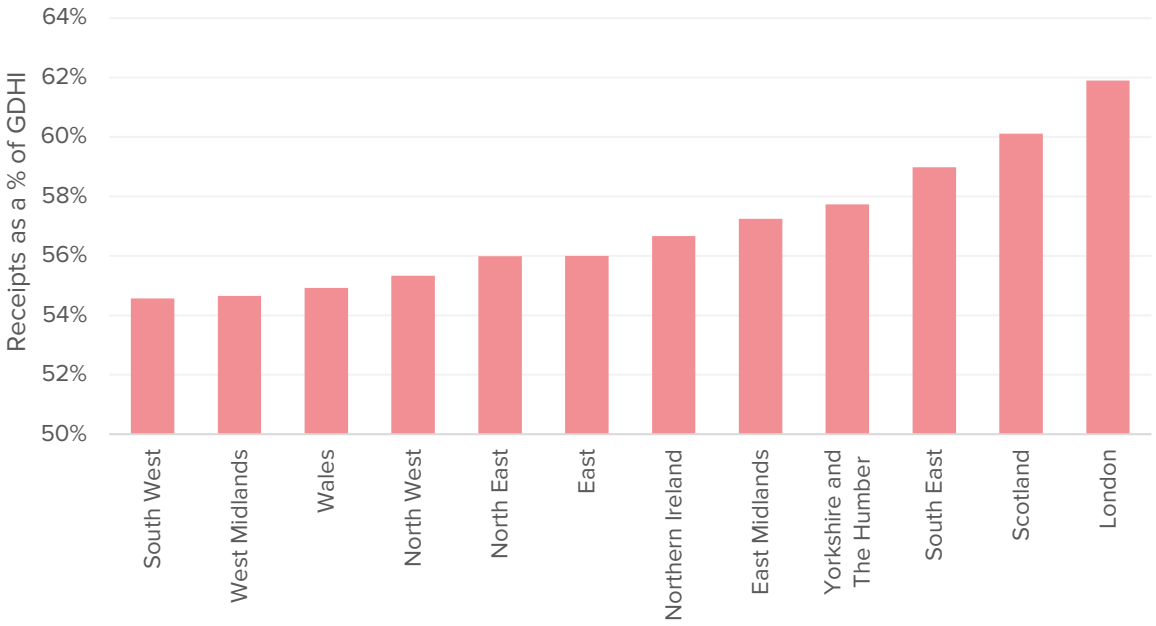


Fig 4: GDHI per head vs tax revenue as a percentage of GDHI, 2018/19

Source: ONS (2020), Country and Regional Accounts, Onward analysis

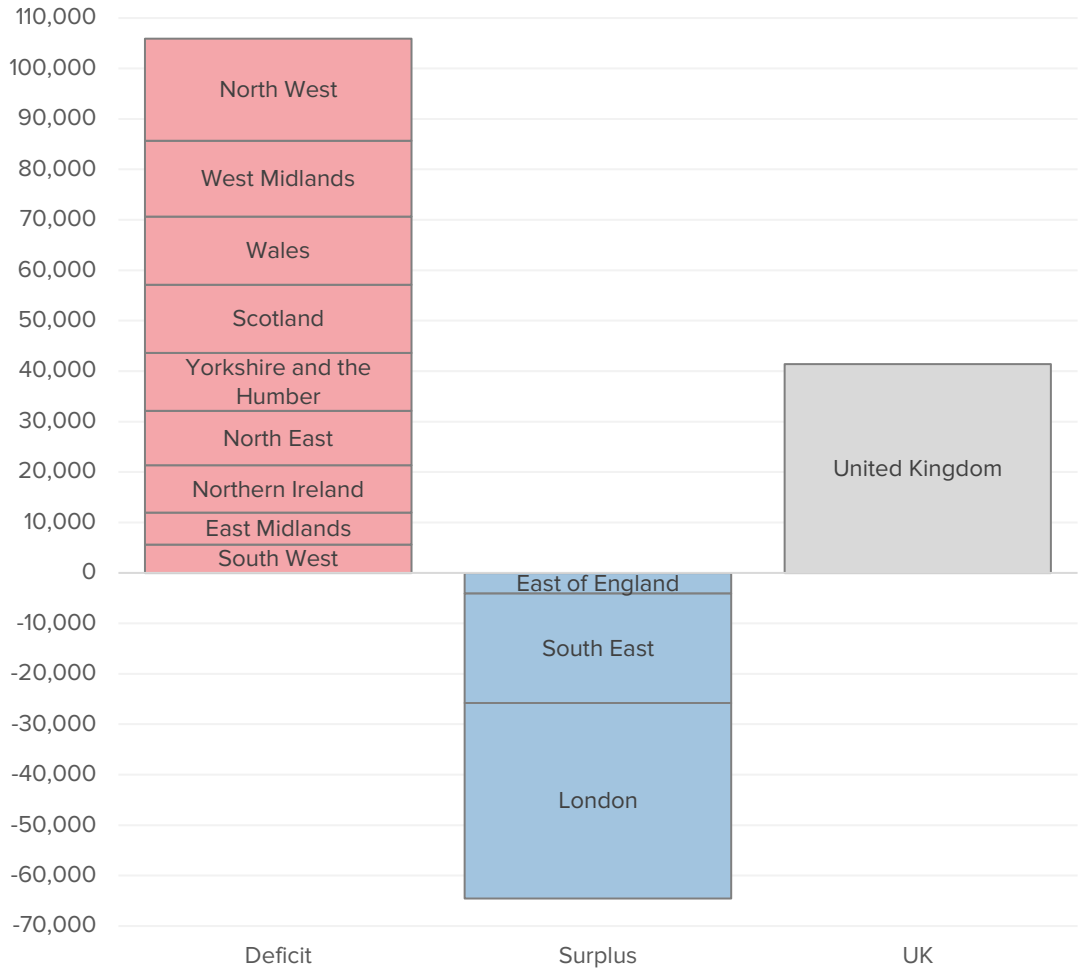
The net fiscal position

London, the South East and the East of England are the only regions to generate a net fiscal surplus, offsetting the fiscal deficits of other areas. Although spending per head was also higher than the national average in the capital, London's surplus was £32.7 billion in 2018/19, the same size as the fiscal deficits of the South West, East Midlands, North East and Yorkshire combined. A number of regional authorities (like the Greater Manchester Combined Authority) have set goals to reduce their fiscal deficit by achieving higher growth.

On a per capita basis, London generates £4,350 per person more in revenue than it receives in total spending. This is twice as high as the South East, which has a net fiscal balance of £2,375 per head. In the North East, the situation is almost exactly opposite to London - the region receives £4,064 more per person than is raised in revenue from that region.

Fig 5: Net Fiscal Balance by region, 2018/19

Source: ONS (2020), Country and Regional Accounts, Onward analysis



We should be cautious about rushing to draw political conclusions from estimates of transfers between regions. First, as previous Onward publications have highlighted, broad averages conceal a lot of variation. London's fiscal surplus reflects a lot of corporation tax receipts which may reflect economic activity happening nationwide, plus the presence of a large number of very high earners. The earnings gap between the capital and the rest is largest for higher and very high earnings, and much smaller for median and low earners. So the transfer between regions *in aggregate* certainly does not imply that there is the same transfer from the median Londoner to the median person elsewhere.

Second, the areas that see the largest net transfers to them are typically areas with many older people. The largest fiscal transfers are to places many people have retired to: The Isle of Wight, Torbay, Dorset, North and West Norfolk, where a large part of the population is beyond working age. In some respects, it therefore reflects the established fiscal transfer between generations of working age and those in retirement.

The same person might be a net taxpayer while working in a city, but then retire to the coast. This means that transfers between regions can in practice also mean transfers between the same people at different stages of their life course. The chart below looks at transfers for small areas, using the difference between Gross Disposable Household Income before and after tax and benefits.

Fig 6: Estimated Fiscal Balance by region, 2017 and age of population

Source: ONS (2017), Effect of tax and benefits on Gross Household Disposable Income, Onward analysis

2. Personal taxes

2.1 Income tax and national insurance contributions

One nuance we should remember regarding income tax is that Scotland and Wales have different rates of income tax to the rest of the UK, so have different rates as well as a different base.

Income tax comprised 25% of all tax revenue in the UK in 2018/19. London accounts for an increasingly large portion of this, up from 19% in 1999 to 24% of total income tax today.

In London, income tax receipts have grown by 87% on average since 1999 - equivalent to £22 billion in real terms - while in the North of England they have grown 15%, or £4 billion. This means that, while London generated 1.4% less in total income tax receipts than the North of England in 1999/00, by 2018/19 it generated 38% more in income tax revenue, largely as a result of divergence in population and earnings.

Table 2: Level and growth of income tax receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£48,776	£22,676	£5,475	£1,838	18.6%	17.3%	10.0%	8.9%
South East	£36,527	£9,856	£3,999	£650	16.4%	16.8%	11.7%	11.6%
East of England	£20,156	£5,285	£3,250	£470	14.6%	15.8%	10.8%	11.3%
South West	£13,363	£2,427	£2,386	£150	11.4%	13.0%	8.5%	9.6%
Scotland	£12,723	£2,803	£2,340	£383	12.0%	12.9%	7.9%	8.5%
East Midlands	£10,234	£1,550	£2,130	£41	10.6%	11.5%	8.2%	9.4%
North West	£15,256	£2,124	£2,092	£153	11.4%	12.7%	7.4%	8.6%
West Midlands	£12,250	£1,814	£2,076	£96	11.4%	12.8%	7.7%	8.7%
Yorkshire and the Humber	£10,490	£1,235	£1,914	£47	11.9%	14.5%	7.4%	8.7%
North East	£4,588	£522	£1,726	£131	10.2%	11.2%	7.3%	8.3%
Wales	£5,279	£674	£1,682	£95	9.8%	10.9%	7.0%	8.2%
Northern Ireland	£2,884	£387	£1,533	£47	8.8%	11.2%	5.9%	7.1%
UK	£192,526	£51,353	£2,898	£494	13.7%	14.3%	9.0%	9.3%

Turning to per capita measures, there was a £1,838 increase in income tax per person paid in London over the last twenty years (from £3,683 to £5,475), compared to an average £113 increase in the North of England (from £1,853 to £1,966). This is the aggregate amount divided by the population - so doesn't imply the same changes for the median earners in these places.

A similar pattern is visible for national insurance contributions (NICs). Receipts from NICs have more than doubled in London since 1999/00, compared to a 32% increase elsewhere. London's share of receipts has risen from 13.6% to 20.1%.

In 1999/00, the North contributed £24 billion in national insurance, nearly double London's contribution of £13 billion. By 2018/19, the North contributed over £1 billion less in real terms than the £27.5 billion generated in London.

Table 3: Level and growth of National Insurance receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£27,544	£16,686	£3,092	£1,579	10.53%	7.20%	5.65%	3.71%
South East	£22,323	£10,857	£2,444	£1,004	10.05%	7.24%	7.17%	4.98%
East of England	£13,989	£6,337	£2,256	£825	10.16%	8.12%	7.50%	5.79%
Scotland	£10,935	£3,505	£2,011	£545	10.27%	9.65%	6.78%	6.37%
East Midlands	£8,606	£2,596	£1,791	£345	10.34%	11.07%	6.41%	6.60%
South West	£9,834	£3,081	£1,756	£375	8.40%	8.03%	6.22%	5.91%
West Midlands	£10,282	£2,812	£1,742	£325	9.56%	9.17%	6.43%	6.23%
North West	£12,679	£3,373	£1,739	£365	9.47%	8.97%	6.11%	6.10%
Yorkshire and the Humber	£9,080	£2,016	£1,657	£232	8.89%	7.96%	6.90%	6.48%
North East	£4,289	£889	£1,614	£279	9.50%	9.39%	6.85%	6.92%
Northern Ireland	£2,913	£903	£1,548	£351	8.93%	9.01%	5.96%	5.73%
Wales	£4,783	£1,074	£1,524	£246	8.91%	8.81%	6.39%	6.62%
UK	£137,257	£54,129	£2,066	£651	9.79%	8.40%	6.41%	5.48%

If we compare Income Tax and National Insurance, it is clear that Income Tax is more regionally progressive and proportionally much more is paid in the highest income regions.

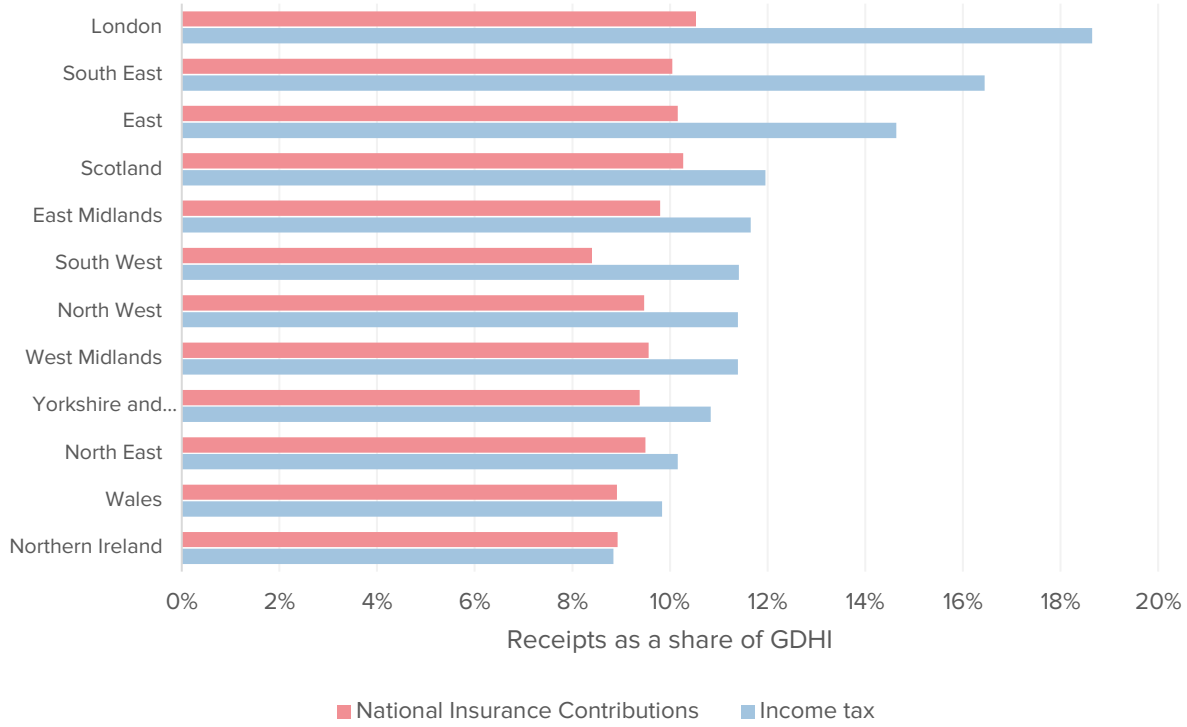
On a per capita basis, NICs receipts have risen in real terms by £1,579 in London and £1,004 in the South East but only by £246 in Wales and £232 in Yorkshire and the Humber.

This twenty-year divergence has resulted in wide regional disparities. Comparing the regions with the highest and lowest per capita revenue, income tax per head in London is 3.6 times higher than Northern Ireland and NICs per head is twice as high as Wales. Generally speaking, wealthier regions contribute more tax revenue.

This is also true when we look at income tax revenue as a percentage of gross disposable household income (GDHI). London and the South East pay a greater proportion of disposable income in taxes than other regions, which is unsurprising given the progressive nature of income tax.

Figure 7: Income tax and NICs as a proportion of GDHI, 2018/19

Source: ONS (2020), Country and Regional Accounts, Onward analysis



For National Insurance Contributions expressed as a percentage of GDHI, the regional profile is much flatter. NICs revenue is roughly equal to 10.5% of total GHDI in London and 9.5% of GDHI in the North East. Unlike income tax, National Insurance is not straightforwardly progressive. For the year 2020/21, individuals pay 12% of earnings between £183 and £962 a week; but only 2% is charged on earnings over £962. This is what gives rise to the 1 percentage point gap between London and the North East for NICs as a proportion of GDHI, compared to the 8.5 percentage point gap for income tax.

2.2 Value Added Tax

VAT alone accounts for 18.7% of all tax revenue raised in the UK, second only to Income Tax. London and the South East contributed 29.6% of the £151 billion generated by VAT in 2018/19, only marginally lower than the 30.2% they contributed in 1999/00. Indeed, VAT receipts in London have grown at the slowest rate of any UK region since the turn of the century, meaning that in real per capita terms Londoners pay 7% (£170) more in VAT than twenty years ago, compared to 38% (£592) in the North East.

Similarly, the wealthiest regions on average - London, the South East, and East of England - raise less revenue relative to disposable income than poorer regions like the North East and Northern Ireland. VAT revenue in London is equal to 4.6% of the region's GDP. In the North East, Wales and Northern Ireland, this figure is twice as high at around 9%.

Table 4: Level and growth of VAT receipts

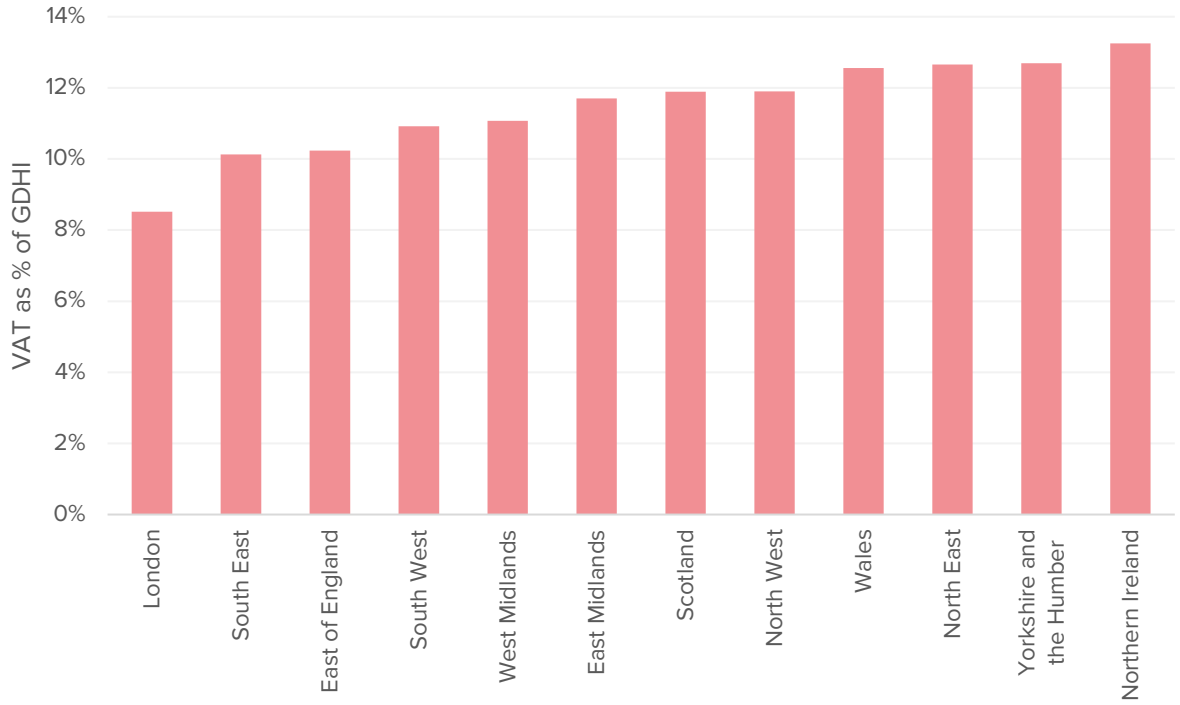
Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£22,269	£8,423	£2,500	£570	8.5%	9.2%	4.6%	4.7%
South East	£22,491	£8,984	£2,462	£766	10.1%	8.5%	7.2%	5.9%
Scotland	£12,656	£5,150	£2,327	£847	11.9%	9.7%	7.8%	6.4%
Northern Ireland	£4,322	£1,808	£2,297	£800	13.2%	11.3%	8.8%	7.2%
South West	£12,780	£5,526	£2,282	£799	10.9%	8.6%	8.1%	6.3%
East of England	£14,095	£5,758	£2,273	£714	10.2%	8.8%	7.6%	6.3%
Yorkshire and the Humber	£12,286	£4,989	£2,242	£770	10.6%	8.0%	8.2%	6.5%
North West	£15,940	£5,882	£2,186	£701	11.9%	9.7%	7.7%	6.6%
North East	£5,716	£2,170	£2,151	£759	12.7%	9.8%	9.1%	7.2%
Wales	£6,741	£2,640	£2,148	£735	12.6%	9.7%	9.0%	7.3%
East Midlands	£10,272	£4,220	£2,138	£682	14.0%	11.4%	8.7%	6.8%
West Midlands	£11,902	£4,219	£2,017	£560	11.1%	9.4%	7.4%	6.4%
UK	£151,470	£59,768	£2,280	£719	10.8%	9.3%	7.1%	6.0%

The same general trend holds true when comparing VAT to total gross disposable household income (GDHI), as Figure 8 shows below. On this basis VAT appears to be quite a regionally regressive tax. But as noted at the start, this does not necessarily tell us about how much VAT the median income person in different regions is paying. There has been a long running debate about the distributional effects of VAT, and the IFS describes it as "distributionally neutral."[2]

Figure 8: VAT as a share of GDHI

Source: ONS (2020), Country and Regional Accounts, Onward analysis



2.3 Stamp duty

Stamp duty and capital gains revenue is increasingly concentrated on more prosperous areas. As we will see in the following section of this chapter, the pattern of stamp duty receipts contrast strongly with the pattern for recurrent property taxation in the form of council tax.

The most prosperous regions, London and the South East, paid 58% of stamp duty land tax in 2018/19, up from 48% in 1999/00. In per capita terms, London, the highest contributing region, contributed £512, more than eleven times the contribution of Northern Ireland (£43 per head). In this respect, SDLT is regionally very progressive.

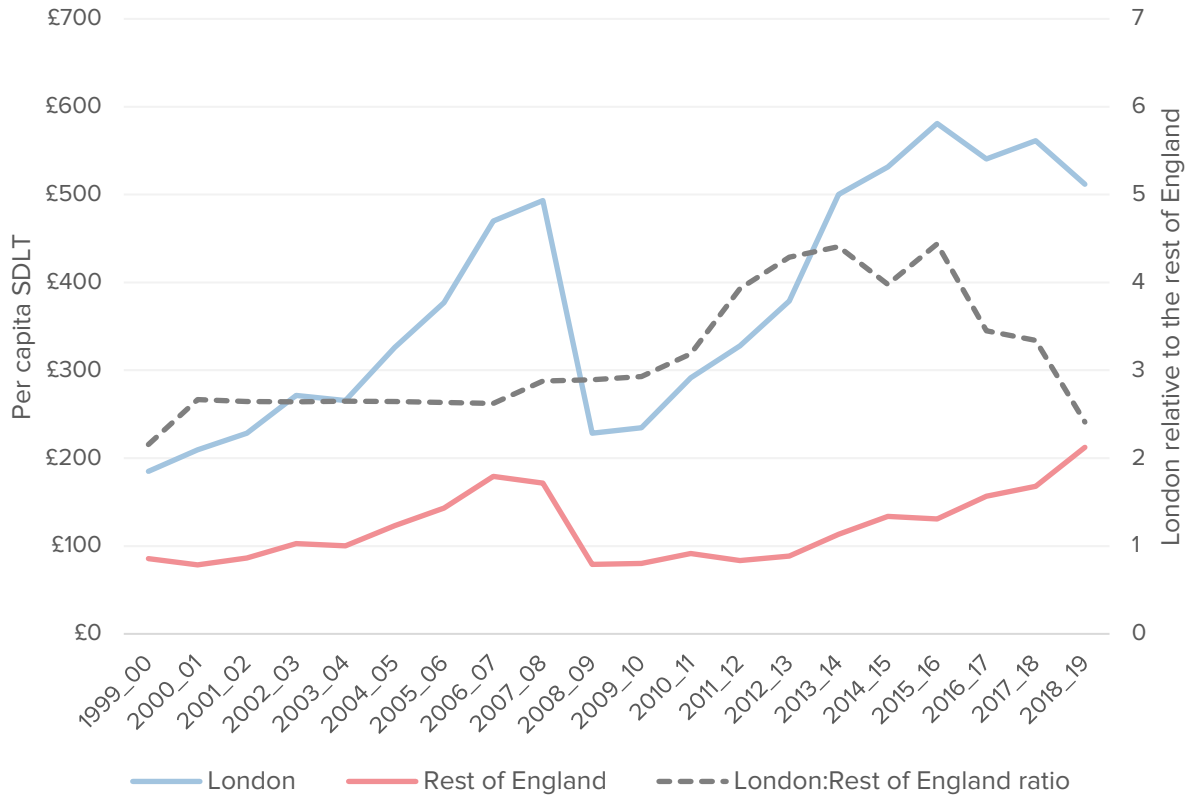
Almost all of this divergence has taken place since 2008/09. In fact, between 1999/00 and 2006/07, SDLT revenues grew faster in the regions of the North of England than they did in London. Since 2008/09, London has grown at twice the rate of the North of England. The gap between London and the rest of England was remarkably stable between 1999 and 2007. Since the financial crisis, per capita receipts in London rose from 2.8 times the average to 4.4 times the average in 2013/14.

Table 5: Level and growth of SDLT receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2020, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£4,559	£3,232	£512	£327	1.74%	0.88%	0.94%	0.45%
South East	£2,443	£1,542	£267	£154	1.10%	0.57%	0.78%	0.39%
East	£1,264	£832	£204	£123	0.92%	0.46%	0.68%	0.33%
South West	£1,049	£608	£187	£97	0.90%	0.52%	0.66%	0.39%
Yorkshire and the Humber	£532	£326	£111	£61	0.55%	0.27%	0.43%	0.22%
West Midlands	£647	£352	£110	£54	0.60%	0.36%	0.40%	0.25%
North West	£713	£417	£98	£54	0.53%	0.29%	0.34%	0.19%
East Midlands	£512	£286	£93	£48	0.58%	0.35%	0.36%	0.21%
North East	£166	£78	£62	£28	0.37%	0.24%	0.26%	0.18%
England	£11,885	£7,673	£212	£126	0.98%	0.50%	0.65%	0.33%

Figure 9: Per capita SDLT receipts for London and the rest of England (LHS) and London and a multiple of the rest of England (RHS)



2.4 Capital gains and inheritance tax

As we saw with stamp duty, the gap between London and the South East and the rest of the UK has widened. These two regions alone account for 53% of capital gains receipts, up from 48% in 1999/00. Capital gains revenue has more than tripled in London over that period, from £804 million to £2.8 billion. This equates to a £207 per capita increase in London, almost ten times the £29 per capita increase seen in the North East.

Relative to disposable incomes, the South of England generates proportionally more revenue than the UK average. At one end of the distribution is London, where capital gains receipts are equal to 1.1% of GDHI, and at the other end is Northern Ireland, where revenue is only 0.3% of GDHI. Over the last twenty years, capital gains tax receipts have increased relative to disposable incomes in every region of the UK. The largest percentage point increases are in London and the South East (0.37pp and 0.33pp, respectively), with Scotland and Northern Ireland seeing almost no change at all.

Table 6: Level and growth of Capital Gains receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

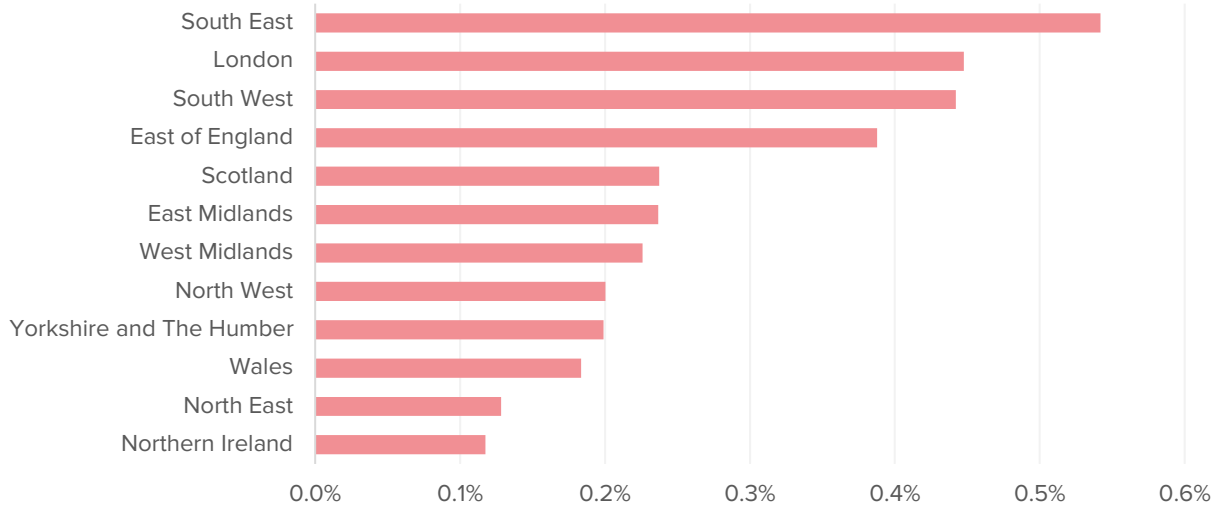
	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£2,840	£2,036	£319	£207	1.09%	0.53%	0.58%	0.27%
South East	£2,050	£1,362	£224	£138	0.92%	0.43%	0.66%	0.30%
East of England	£918	£614	£148	£91	0.67%	0.32%	0.49%	0.23%
South West	£758	£472	£135	£77	0.65%	0.34%	0.48%	0.25%
Yorkshire and the Humber	£472	£294	£86	£50	0.39%	0.18%	0.30%	0.14%
North West	£590	£377	£81	£49	0.44%	0.21%	0.28%	0.14%
East Midlands	£377	£243	£78	£46	0.54%	0.28%	0.33%	0.17%
Scotland	£399	£190	£73	£32	0.37%	0.27%	0.25%	0.18%
West Midlands	£412	£263	£70	£42	0.38%	0.18%	0.26%	0.12%
Wales	£164	£110	£52	£34	0.31%	0.13%	0.22%	0.10%
North East	£131	£80	£49	£29	0.29%	0.14%	0.21%	0.10%
Northern Ireland	£88	£51	£47	£25	0.27%	0.16%	0.18%	0.10%
UK	£9,199	£6,092	£138	£86	0.66%	0.31%	0.43%	0.20%

Turning to inheritance tax, 25% of revenue is paid in the South East alone. London accounts for a further 24%. In fact, £7 in every £10 is paid in the south and east of England. Per capita inheritance tax in the South East is six times higher than the North East, £132 compared to £22.

This is due to higher levels of wealth being concentrated in this part of the country. Total household wealth per capita (aggregated property, financial and pension wealth) in the South East is almost twice as high as it is in the North East and West Midlands. It is also clear than areas with higher incomes, not just total wealth, generate more revenue from inheritance tax, as Figure 10 shows below.

Figure 10: Inheritance tax revenue as a proportion of GDHI

Source: ONS (2020), Country and Regional Accounts, Onward analysis



2.5 Council tax

Council tax increases with property value but at less than a fixed percentage - it is part way between the (flat) poll tax and the old domestic rates which were essentially proportional to house price. Northern Ireland has retained the original rates system.

In contrast to the pattern for SDLT and capital gains, London is among the lowest-paying areas for council tax or rates. Average council tax per head is lower in London (£481) than any other English region, although it is important to note considerable variation between high council tax boroughs such as Hackney and low council tax boroughs like Wandsworth. The rate in Scotland is lower at £447 per head.

London has seen its share of total council tax revenue decline quite steadily from 13.4% of the UK total in 2004/05 to 12.5% in 2018/19, despite average house prices more than doubling in the capital over that period.

Table 7: Level and growth of Council tax receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
South East	£5,875	£2,933	£643	£274	2.65%	1.86%	1.89%	1.28%
South West	£3,470	£1,737	£620	£265	2.96%	2.06%	2.20%	1.52%
East of England	£3,678	£1,781	£593	£238	2.67%	2.01%	1.97%	1.44%
East Midlands	£2,532	£1,101	£527	£183	2.62%	1.90%	2.03%	1.54%
North West	£3,695	£1,465	£507	£178	2.76%	2.15%	1.78%	1.46%
Wales	£1,582	£836	£504	£247	2.95%	1.77%	2.11%	1.33%
North East	£1,313	£544	£494	£192	2.91%	2.12%	2.10%	1.57%
Yorkshire and the Humber	£2,686	£1,207	£490	£192	3.06%	2.32%	1.90%	1.38%
West Midlands	£2,850	£1,168	£483	£164	2.65%	2.07%	1.78%	1.40%
London	£4,289	£1,991	£481	£161	1.64%	1.52%	0.88%	0.79%
Scotland	£2,433	£614	£447	£89	2.29%	2.36%	1.51%	1.56%
UK	£34,403	£15,377	£533	£199	2.45%	1.92%	1.61%	1.25%

But for the rest of the UK, there seems to be a positive relationship between rates of SDLT and council tax, which marks London as an extreme outlier. This suggests that council tax does not reflect the underlying value of London's houses as it does elsewhere. This is likely driven by the fact that properties are still taxed based on 1991 valuations, and more importantly, the funding formula for local government (currently under review), which enables London councils to have much lower rates of council tax.

There are two explanations for this mismatch. If we compare Band D rates in capital with rates in the rest of the country, the London Boroughs do genuinely charge significantly less council tax than other areas. Kingston, Richmond and Harrow are the only exceptions to this.

Figure 11, below, shows that most of the authorities with the lowest council tax are located in London. Of the 10% cheapest areas, 71% are London Boroughs, and none of the 10% most expensive areas are in London. Compare this with council tax for a Band D property in Hartlepool for 2020/21, which is £2,090 – sixth highest in the country. In Blackpool it is £1,901.

Another reason why council tax receipts per person are so low in London may be due to overcrowding. Using the bedroom standard, Londoners are almost four times as likely to live in overcrowded accommodation than average. The rate of overcrowding is 8% in London, followed by 3.1% in the West Midlands. In the North East, this figure is just 1.7%.[3]

Fig 11: Stamp Duty Land Tax vs Council Tax, per capita

Source: ONS (2020), Country and Regional Accounts, Onward analysis

Figure 12: Band D council tax for London Boroughs and local authorities in the rest of England

Source: MHCLG

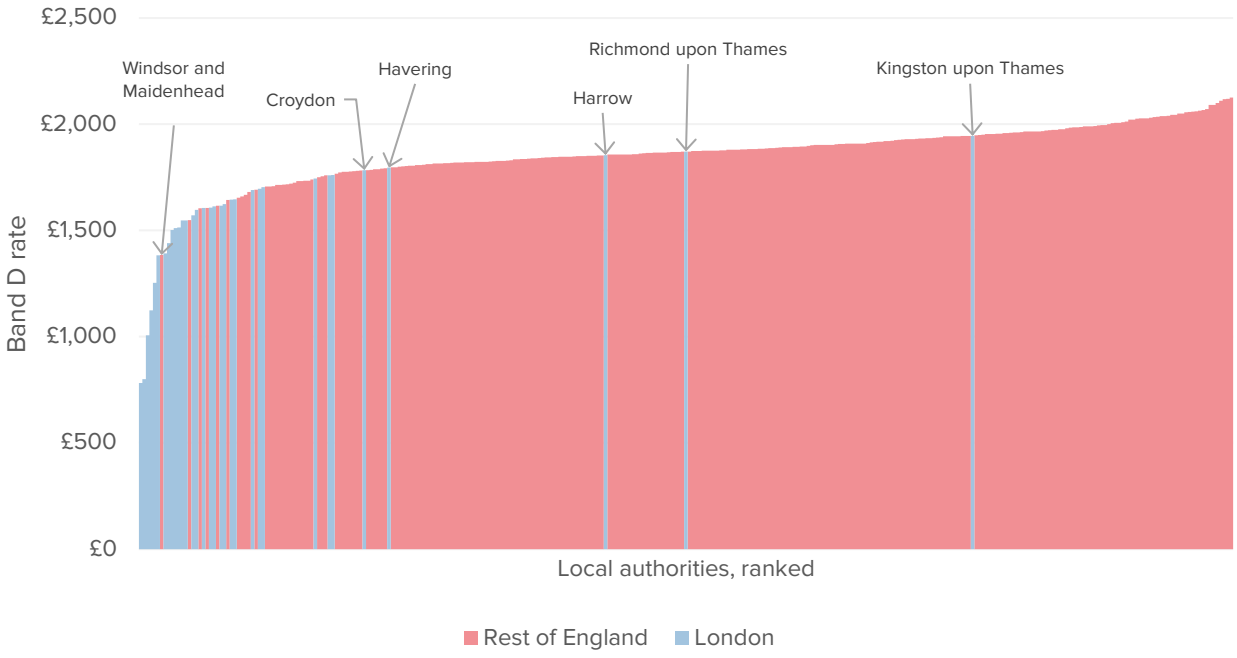
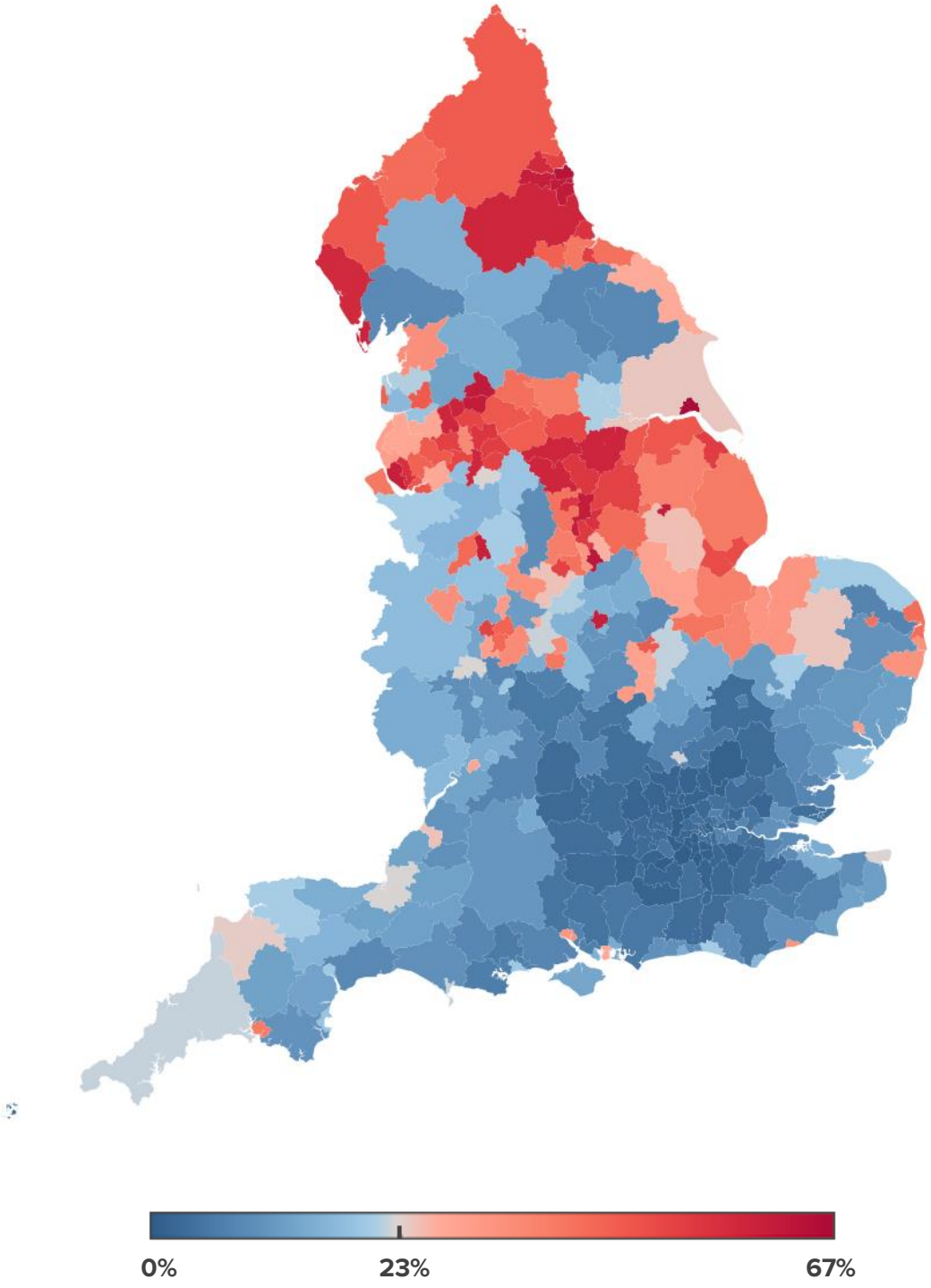


Figure 13: Proportion of properties in Council Tax Band A, 2019

Source: Valuation Office Agency



2.6 Tobacco and alcohol duties

Behavioural taxes, such as levies on cigarettes and alcohol, play an important policy function but they are increasingly paid by the poorest regions. London contributed 15% of tobacco duty receipts, and 13% of alcohol duty receipts in England in 1999/00; in 2018/19, the capital contributed 10% and 10% respectively.

On a per capita basis, London experienced the steepest real terms fall in costs from alcohol duties, saving an average £18, and the second-steepest fall in tobacco duties, a saving of £82. This compares to an average per capita increase of £27 across other regions on alcohol duties and a regional average saving of £46 on tobacco duty.

This is partly due to faster declines in these behaviours in the capital which may be driven by changes in relative demographics in the capital. Although smoking is more prevalent among those in their twenties and thirties, the steepest decline in smoking rates over the last decade was among 18-24 year-olds.[4] London has grown its relative share of graduates, who are less likely to smoke. We must also note that alcohol consumption is impacted by cultural differences. Drinking regularly is significantly more common among the White population, which partly explains why London has the highest rate of teetotalism of any UK region (27%, compared to the national average of 20%).[5]

With alcohol and tobacco duties in particular, the key distinction is between London (rather than the Greater South East) and the rest of the UK. Although the East and South East pay less per person in tobacco duties than the UK average, the decline in per capita revenue was faster in every other region except Northern Ireland, which saw an increase of £18 per head.

Alcohol duties present an even more nuanced picture. Gross receipts were just over a billion in London in 2019, broadly similar to Yorkshire, Scotland and the East Midlands and lower than the highest-taxed regions, the North West, South East and East of England. London has seen its alcohol tax burden grow relatively slowly since 1999, by only £72 million compared to £441 million in the South East and £546 million in the East of England.

Revenue per head has declined in London and Wales but increased in every other region. Londoners pay £18 less in real terms than in 1999. In Wales, revenue is £13 lower than 20 years ago.

At the other end of the spectrum, alcohol duties per head have increased by £69 in the East of England and £59 in Northern Ireland. Generally richer regions do not seem to raise more or less alcohol duty per head of population. Very little separates the South East and North East in current receipts per capita or change over time. GDHI per head is also not closely related to alcohol duties per head or the change in revenue since 1999.

Table 8: Level and growth of tobacco receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2020, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
Northern Ireland	£535	£87	£284	£18	1.64%	2.01%	1.09%	1.28%
Scotland	£1,093	-£265	£201	-£67	1.03%	1.76%	0.68%	1.16%
North East	£465	-£77	£175	-£38	1.03%	1.50%	0.74%	1.10%
Wales	£512	-£88	£163	-£44	0.95%	1.43%	0.68%	1.07%
East Midlands	£715	-£107	£149	-£49	0.74%	1.09%	0.57%	0.89%
Yorkshire and the Humber	£806	-£257	£147	-£67	0.92%	1.67%	0.57%	0.99%
North West	£978	-£517	£134	-£87	0.73%	1.44%	0.47%	0.98%
West Midlands	£764	-£208	£129	-£55	0.71%	1.19%	0.48%	0.81%
South East	£1,153	-£126	£126	-£34	0.52%	0.81%	0.37%	0.55%
South West	£621	-£127	£111	-£42	0.53%	0.89%	0.39%	0.65%
East of England	£673	-£118	£109	-£39	0.49%	0.84%	0.36%	0.60%
London	£837	-£427	£94	-£82	0.32%	0.84%	0.17%	0.43%
UK	£9,152	-£2,231	£138	-£56	0.65%	1.15%	0.43%	0.75%

Table 9: Level and growth of alcohol receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
North West	£1,626	£347	£223	£34	1.21%	1.23%	0.78%	0.84%
East Midlands	£1,020	£310	£212	£42	1.05%	0.94%	0.82%	0.77%
East of England	£1,302	£546	£210	£69	0.95%	0.80%	0.70%	0.57%
North East	£535	£84	£201	£24	1.18%	1.25%	0.85%	0.92%
Scotland	£1,047	£162	£193	£18	0.98%	1.15%	0.65%	0.76%
Yorkshire and the Humber	£1,052	£199	£192	£20	1.20%	1.34%	0.74%	0.80%
Northern Ireland	£347	£137	£184	£59	1.06%	0.94%	0.71%	0.60%
South East	£1,665	£441	£182	£29	0.75%	0.77%	0.53%	0.53%
South West	£998	£182	£178	£11	0.85%	0.97%	0.63%	0.71%
West Midlands	£975	£128	£165	£5	0.91%	1.04%	0.61%	0.71%
Wales	£496	-£2	£158	-£14	0.92%	1.18%	0.66%	0.89%
London	£1,034	£72	£116	-£18	0.40%	0.64%	0.21%	0.33%
UK	£12,097	£2,607	£182	£21	0.86%	0.96%	0.57%	0.63%

3. Green levies

3.1 Air passenger duty

Air Passenger Duty receipts are extremely skewed towards more prosperous regions - and increasingly so.

London and the South East contributed over £2 billion in APD in 2018/19, equivalent to 56% of total receipts from the tax, up from 47% in 1999/00. Indeed, London contributed £151 per capita in APD in 2018/19, more than three times the UK average of £44. Per capita APD receipts have risen four times faster in London than elsewhere since 1999/00, rising by £85 compared to £21 for the UK as a whole.

Table 10: Level and growth of Air Passenger Duty receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£1,789	-£933	£151	£96	0.51%	0.26%	0.28%	0.13%
South East	£4,440	-£596	£76	£50	0.31%	0.13%	0.22%	0.09%
North West	£3,027	-£622	£67	£37	0.36%	0.19%	0.23%	0.13%
Scotland	£2,384	-£266	£63	£34	0.32%	0.19%	0.21%	0.13%
East of England	£3,113	-£290	£50	£27	0.22%	0.13%	0.17%	0.09%
Northern Ireland	£874	-£204	£42	£18	0.24%	0.18%	0.16%	0.12%
North East	£1,003	-£199	£24	£10	0.14%	0.10%	0.10%	0.07%
West Midlands	£2,722	-£511	£24	£12	0.13%	0.08%	0.09%	0.05%
South West	£2,551	-£308	£13	£7	0.06%	0.04%	0.05%	0.03%
Yorkshire and the Humber	£2,387	-£421	£10	£7	0.06%	0.03%	0.04%	0.02%
East Midlands	£2,310	-£369	£7	£1	0.03%	0.03%	0.03%	0.03%
Wales	£1,393	-£163	£4	~£0	0.02%	0.03%	0.02%	0.02%
UK	£27,993	-£4,880	£421	-£138	0.26%	0.13%	0.17%	0.08%

3.2 Fuel duty

Changing fuel duty receipts reflect multiple factors: the rate of the duty, the changing share of different modes of transport in different regions (walking, cycling, public transport and cars), the proportion of homes which use oil fired heating, and also the proportion of cars, buses and trains which are electric rather than petrol or diesel. One nuance in understanding the incidence of the tax is that a large proportion of the fuel duty costs paid by buses are refunded separately through the Bus Service Operators Grant. The figures below do not reflect this rebate, which is larger in urban areas with more bus use.

Fuel duty revenues per person have decreased in every region since 1999. The fastest decrease by far was in London (47%). The figures for other parts of the UK range between a 16% decrease (Scotland) and a 28% decrease (Northern Ireland).

Receipts as a share of income have also declined steadily. As with per capita revenue, Northern Ireland saw the fastest fall in fuel duty relative to GDHI, from 4.8% to 2.7%. London is again the exception; fuel duty as a percentage of disposable income (0.68%) is around three-times lower than every other region in the UK.

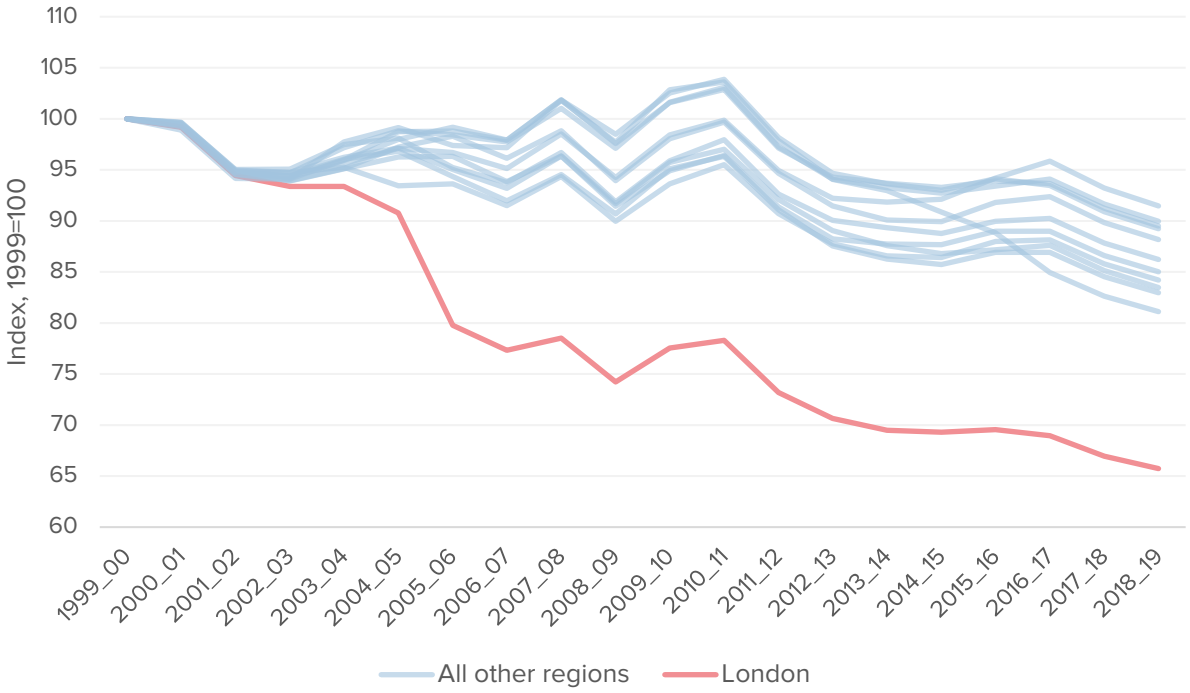
Table 11: Level and growth of fuel duty receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
East of England	£3,113	-£290	£502	-£134	2.26%	3.61%	1.67%	2.58%
South East	£4,440	-£596	£486	-£146	2.00%	3.18%	1.43%	2.19%
East Midlands	£2,310	-£369	£481	-£164	2.39%	3.55%	1.85%	2.89%
Northern Ireland	£874	-£204	£464	-£177	2.68%	4.83%	1.79%	3.07%
West Midlands	£2,722	-£511	£461	-£152	2.53%	3.97%	1.70%	2.70%
South West	£2,551	-£308	£456	-£129	2.18%	3.40%	1.61%	2.50%
Wales	£1,393	-£163	£444	-£92	2.60%	3.70%	1.86%	2.78%
Scotland	£2,384	-£266	£438	-£84	2.24%	3.44%	1.48%	2.27%
Yorkshire and the Humber	£2,387	-£421	£436	-£131	2.72%	4.40%	1.68%	2.63%
North West	£3,027	-£622	£415	-£124	2.26%	3.52%	1.46%	2.39%
North East	£1,003	-£199	£377	-£94	2.22%	3.32%	1.60%	2.45%
London	£1,789	-£933	£201	-£179	0.68%	1.80%	0.37%	0.93%
UK	£27,993	-£4,880	£421	-£138	2.00%	3.32%	1.31%	2.17%

Figure 14: Change in fuel duty revenue, 1999-2019, real terms

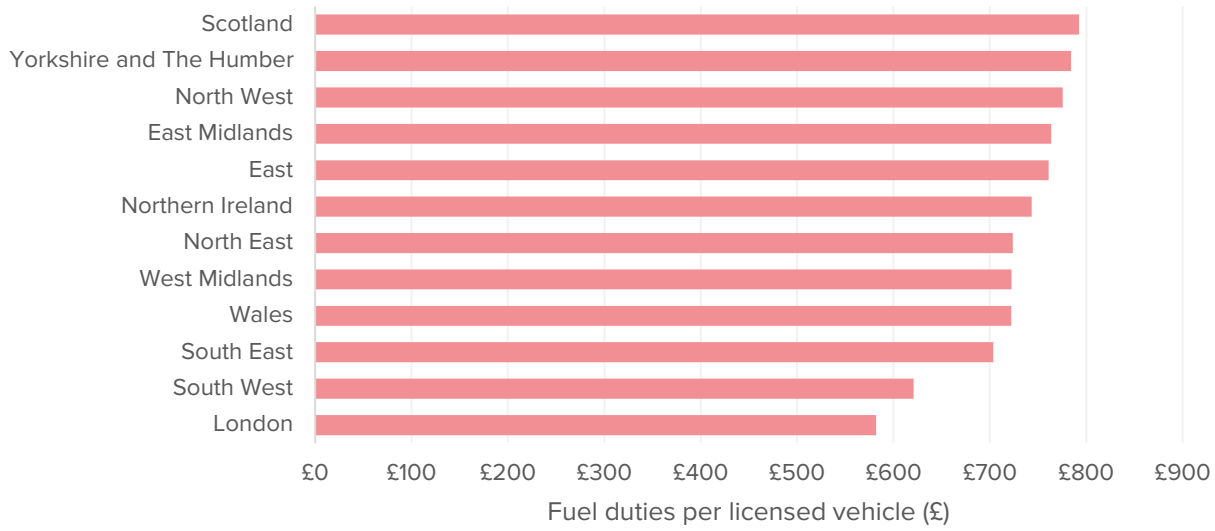
Source: ONS, Country and Region Analysis, Regional Price Deflators, 1999/00=100



We can get a sense of how much of these divergences are driven (excuse the pun) by different proportions of vehicles in different regions, rather than different modes of transport, by looking at the duty paid relative to the number of registered vehicles.

Fig 15: Fuel duties per vehicle

Source: ONS (2020), Country and Regional Accounts, Onward analysis



3.3 Environmental and climate change levies on industry

Businesses are also subject to a variety of other green taxes, including the Climate Change Levy, introduced in 2000 to encourage businesses to reduce their carbon emissions, and a variety of other carbon offsetting and renewables incentives schemes. In the Country and Regional Accounts, ONS splits these into two: The Climate Change Levy and Environmental Levies, the latter of which includes the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) and Renewables Obligations Certificates (ROC), which particularly apply to heavily emitting companies.

In contrast to fuel duty, regions are likely to pay more in environmental levies where the local economy features more heavier industries, manufacturing and production.

London and the South East generated 17% of climate change levy and 25% of environmental levy receipts in 2018/19, down from 24% and 27% when they were introduced in 2001/2 and 2002/3 respectively.

In per capita terms, London has gone from paying roughly the UK average in climate change and environmental levies to 69% and 78% of the UK average respectively. As a share of GDHI, London pays 74% of the UK average for environmental levies and 50% of average climate change levy contributions, compared to 70% and 88% more than the UK average for the highest paying regions, Scotland and Yorkshire, respectively.

The North and Midlands tend to pay disproportionately higher rates for the climate change levy and environmental levies than the Greater South East and London in particular. The climate change levy is equal to just 0.04% of London's economy, but 0.16% of Wales' GDP. Environmental levies are equal to 0.66% of Scotland's GDP and around 0.52%-0.62% in the midlands, but only 0.16% of London's GDP. This exposes a potential tension between levelling up and net zero - or rather, between using such taxes and levelling up.

Table 12: Environmental levies

Source: ONS (2020), Country and Regional Accounts, Change between 2003 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 2003-2019	2019 level	Change 2003-2019	2019	2003	2019	2003
Scotland	£1,062	£1,016	£195	£186	1.00%	0.08%	0.66%	0.05%
East Midlands	£773	£748	£161	£155	0.80%	0.05%	0.62%	0.04%
West Midlands	£828	£790	£140	£133	0.77%	0.06%	0.52%	0.04%
South East	£1,111	£1,051	£122	£114	0.50%	0.05%	0.36%	0.03%
North East	£319	£301	£120	£113	0.71%	0.07%	0.51%	0.05%
South West	£654	£618	£117	£109	0.56%	0.06%	0.41%	0.04%
Wales	£354	£332	£113	£105	0.66%	0.07%	0.47%	0.05%
Yorkshire and the Humber	£568	£529	£104	£96	0.65%	0.07%	0.40%	0.05%
London	£798	£753	£90	£84	0.31%	0.04%	0.16%	0.02%
Northern Ireland	£134	£126	£71	£66	0.41%	0.05%	0.27%	0.03%
North West	£516	£487	£71	£66	0.39%	0.04%	0.25%	0.02%
East of England	£377	£356	£61	£57	0.27%	0.03%	0.20%	0.02%
UK	£7,494	£7,105	£113	£106	0.53%	0.05%	0.35%	0.03%

Table 13: Climate change levy

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 2002-2019	2019 level	Change 2002-2019	2019	2002	2019	2002
Yorkshire and the Humber	£207	£98	£38	£16	0.24%	0.19%	0.15%	0.14%
Wales	£117	£49	£37	£14	0.22%	0.21%	0.16%	0.17%
East Midlands	£175	£85	£36	£15	0.18%	0.19%	0.14%	0.13%
Scotland	£195	£91	£36	£15	0.18%	0.18%	0.12%	0.12%
North West	£258	£116	£35	£14	0.19%	0.18%	0.12%	0.13%
North East	£92	£32	£35	£11	0.20%	0.22%	0.15%	0.17%
South West	£186	£101	£33	£16	0.16%	0.13%	0.12%	0.10%
West Midlands	£184	£83	£31	£12	0.17%	0.17%	0.12%	0.12%
East of England	£181	£83	£29	£11	0.13%	0.14%	0.10%	0.10%
London	£184	£39	£21	£1	0.07%	0.12%	0.04%	0.06%
South East	£157	£18	£17	£0	0.07%	0.12%	0.05%	0.08%
Northern Ireland	£11	-£16	£6	-£10	0.03%	0.16%	0.02%	0.10%
UK	£1,947	£779	£29	£10	0.14%	0.16%	0.09%	0.10%

4. Corporation tax and business rates

4.1 Corporation tax

There are both more businesses, and more businesses *per person* in higher income regions.

In 2019 there were over 50% more business per person in London than the rest of the UK. The largest number of businesses per person are in London, the South East and South West, and the lowest number are in low-income regions like the North East, Northern Ireland and Wales (though higher-income Scotland also has relatively few).

The capital and South East also attract the headquarters of larger firms, which tend to pay more tax. In 2019 London had 12% of all single-employee firms, but 23% of all businesses with 500+ employees.

Between 2012 and 2019, the number of employers (businesses with 1 or more employee) per person grew fastest in London (19%), followed by the East of England, West Midlands and North West (all 10%) with the South West, Scotland and Northern Ireland seeing the slowest growth (all 2%). For these reasons, a third of Corporation Tax is paid in London, totalling £18.4 billion in 2018/19.

While the number of businesses and the size of the economy have increased, the headline rate of corporation tax has been reduced over recent decades, mirroring the reduction in rates seen across all developed countries.

The balance of these two factors pushing in opposite directions: (business growth, but falling rates) is one reason why receipts have grown at quite different rates in different parts of the country. Total corporation tax revenue has risen by 25% in London, the second-highest rate of any UK region; in the South West, revenue rose by 37%. In contrast, receipts have actually fallen in the North and in Scotland.

Looking at the data on a per capita basis, real terms corporation tax receipts fell fastest in Yorkshire and Scotland (16% and 14%, respectively). Growth in revenue per head was fastest in the South West and Wales (20% and 15%, respectively). Although London and the South East both generate more corporation tax revenue per head than the national average (in London the figure is more than twice the average), in terms of growth in revenue they are indistinguishable from the £13 increase across the UK.

Looking at receipts as a share of GHDI, we see that London contributes far more corporation tax as a share of income than other regions. In this respect, London is an outlier, with a relatively

narrow spread between other regions' contributions. As a share of output, a similar story is visible, with London contributing 3.79% of GDP in corporation tax receipts.

However, on both measures the gap between London and other regions has narrowed: in 1999, London's corporation tax receipts were twice the UK average as a share of GDHI and 58% higher as a share of GDP. In 2019, London's receipts were 78% and 46% higher than the UK average respectively.

Table 14: Level and growth of corporation tax receipts

Source: ONS (2020), Country and Regional Accounts, Change between 1999 and 2019, Onward analysis

	Total receipts (£m)		Receipts per capita (£)		Receipts as % GDHI		Receipts as % GDP	
	2019 level	Change 1999-2019	2019 level	Change 1999-2019	2019	1999	2019	1999
London	£18,445	£3,688	£2,071	£14	7.05%	9.78%	3.79%	5.04%
South East	£8,031	£1,148	£879	£15	3.62%	4.34%	2.58%	2.99%
South West	£4,091	£1,112	£731	£121	3.49%	3.54%	2.59%	2.61%
East of England	£4,225	£652	£681	£13	3.07%	3.79%	2.27%	2.71%
Scotland	£3,467	-£287	£638	-£103	3.26%	4.88%	2.15%	3.22%
North West	£4,454	£154	£611	-£24	3.33%	4.14%	2.15%	2.82%
Yorkshire and the Humber	£3,311	-£243	£604	-£113	2.74%	3.32%	2.13%	2.70%
West Midlands	£3,562	£560	£604	£34	3.31%	3.69%	2.23%	2.50%
East Midlands	£2,657	£150	£553	-£50	3.77%	5.57%	2.34%	3.32%
Northern Ireland	£855	£26	£454	-£39	2.62%	3.72%	1.75%	2.36%
Wales	£1,369	£265	£436	£56	2.55%	2.62%	1.83%	1.97%
North East	£1,139	-£10	£429	-£22	2.52%	3.17%	1.82%	2.34%
UK	£55,606	£7,217	£837	£13	3.97%	4.89%	2.60%	3.19%

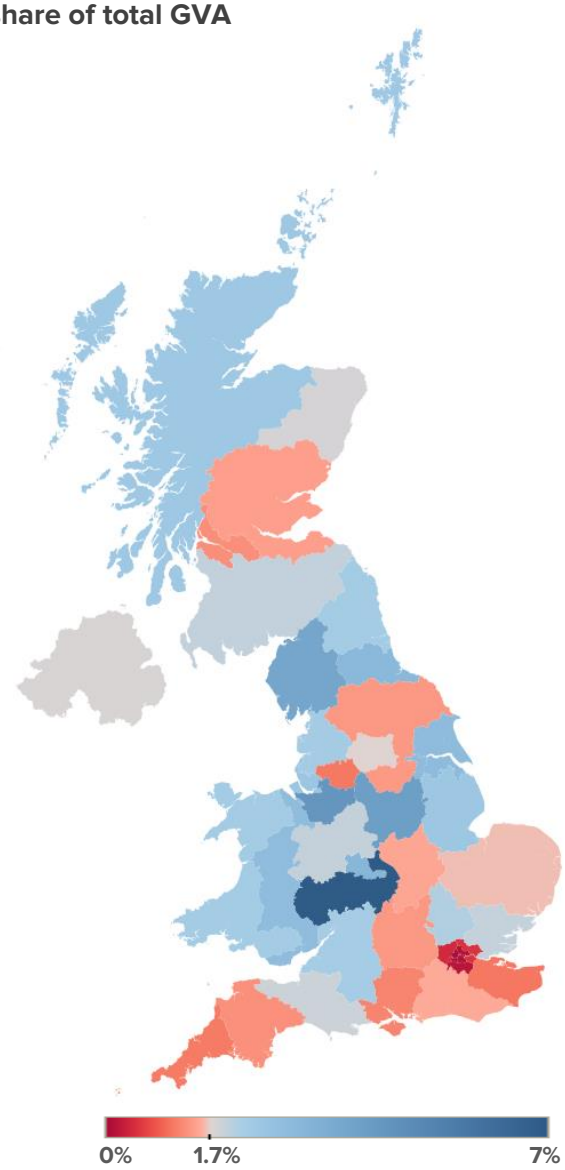
Box 1: Firms' use of capital allowances

Official tax data only reveals the value of capital spending claimed by businesses for tax relief purposes. Because this is subject to a cap, it tells us little about how much more capital spending would qualify for relief if the Treasury increased capital allowances or introduced "full expensing". It is therefore difficult to estimate which regions would benefit most from changes.

However, the ONS does publish data on gross capital formation by sector at NUTS2 region. This is a proxy for the levels of capital investment that may qualify for relief if allowances were extended. Here we set out the regional distribution of gross fixed capital formation in the manufacturing sector specifically, as a share of an area's total GVA. Capital formation as a whole has a similar pattern, but the differences are less pronounced.

- Investment in manufacturing is high relative to total GVA in the Midlands and Wales as well as in much of the North, while in London, the South and Greater Manchester it is lower.
- The area including Herefordshire, Worcestershire and Warwickshire has the highest level of manufacturing capital investment. This is likely due to the automotive industry. Cheshire, Derbyshire, Nottinghamshire, the West Midlands, Teesside, East Yorkshire, Northern Lincolnshire and Cumbria also have high rates.
- This suggests that increasing certain capital allowances, particularly those within categories like plant and machinery or industrial buildings, would be likely to have the largest benefits in these areas.

Figure 16: Manufacturing GFCF as a share of total GVA



4.2 Business rates

The trends for business rates are quite different for those of council tax. Business rates have a single uniform rate across the country and until recently all receipts were retained centrally. They are based on a percentage of the rental value, with various reliefs for smaller businesses. In contrast, council tax rates vary around the country, are retained locally, and are highly influenced by the funding formula for local government - as well as the local tax base. While council tax remains on the basis of 1991 property values, business rates have been regularly revalued.

In 1999/00, London contributed 22% of business rates receipts. Today London contributes 28%. This is equivalent to a £302 per capita increase in business rates. Most regions have seen relatively small increases in business rate receipts over the period - £14 in the West Midlands to £56 in the North East.

This divergence over time means that revenue from business rates in London is twice that of any other region and nearly ten times higher than the North East. We also see a similarly large disparity when we control for population size, but less so when controlling for GDP. Business rates are roughly equal to 1.64% of London's economy, but an average of 1.25% of GDP across the rest of Great Britain. Interestingly, the South East and East of England sit below the national average for business rates as a percentage of GDP - 1.16% and 1.19%, respectively. Wales has the third-highest proportion of GDP, at 1.44%.

We could also divide total business rates revenue by the number of local units (individual sites belonging to a business) in each region. This still puts London at the top, at an average of £13,828, followed closely by Scotland. The distribution is largely unchanged, with the exception of the North East, which raises more revenue per local unit than any other English region outside London.

5. Putting it together

So, looking at the main types of taxes, we have seen that different taxes bear quite differently on different regions. The tables below show how the different taxes we have looked at so far affect different places.

- The capital generates relatively more revenue from big taxes like income tax, national insurance and corporation tax than other regions.
- But Londoners have a fairly low average council tax bill, as well as paying far less in alcohol and tobacco duties and fuel duty.
- For VAT, the second-largest tax, receipts per capita are noticeably higher in London and the South East. But when compared to GDHI, regions like the North East and East Midlands contribute greater sums as a percentage of income.
- For environmental levies on businesses, the burden falls more on Scotland and the Midlands than the Greater South East.
- Higher incomes and wealth in London and the South East partly explain why these two regions generate significantly more revenue from SDLT and capital gains than the rest of the UK.

Table 15: Tax revenue per head of population

	Income tax	National Insurance	VAT	Stamp duty and capital gains	Council tax	Alcohol and tobacco	Fuel Duty	Environmental levies on business	Business rates	Corporation tax
LDN	£5,475	£3,092	£2,500	£831	£481	£210	£201	£261	£895	£2,071
SE	£3,999	£2,444	£2,462	£492	£643	£309	£486	£215	£396	£879
EoE	£3,250	£2,256	£2,273	£352	£593	£318	£502	£140	£357	£681
SW	£2,386	£1,756	£2,282	£323	£620	£289	£456	£163	£330	£731
S	£2,340	£2,011	£2,327	£176	£447	£394	£438	£294	£485	£638
EM	£2,130	£1,791	£2,138	£189	£527	£361	£481	£204	£309	£553
NW	£2,092	£1,739	£2,186	£179	£507	£357	£415	£173	£350	£611
WM	£2,076	£1,742	£2,017	£179	£483	£295	£461	£196	£330	£604
YATH	£1,914	£1,657	£2,242	£180	£490	£339	£436	£151	£333	£604
NE	£1,726	£1,614	£2,151	£112	£494	£376	£377	£179	£307	£429
W	£1,682	£1,524	£2,148	£124	£504	£321	£444	£154	£343	£436
NI	£1,533	£1,548	£2,297	£89	n/a	£469	£464	£119		£454

Table 16: Tax revenue as a proportion of GDHI

	Income tax	National Insurance	VAT	Stamp duty and capital gains	Council tax	Alcohol and tobacco	Fuel Duty	Environmental levies on business	Business rates	Corporation tax
LDN	18.60%	10.53%	8.50%	2.83%	1.64%	0.72%	0.68%	0.89%	3.05%	7.05%
SE	16.40%	10.05%	10.10%	2.02%	2.65%	1.27%	2.00%	0.88%	1.63%	3.62%
EoE	14.60%	10.16%	10.20%	1.58%	2.67%	1.43%	2.26%	0.63%	1.61%	3.07%
S	12.00%	10.27%	11.90%	0.90%	2.29%	2.01%	2.24%	1.50%	2.48%	3.26%
YATH	11.90%	8.89%	10.60%	1.02%	3.06%	1.92%	2.72%	0.86%	2.08%	2.74%
NW	11.40%	9.47%	11.90%	0.97%	2.76%	1.94%	2.26%	0.94%	1.91%	3.33%
SW	11.40%	8.40%	10.90%	1.54%	2.96%	1.38%	2.18%	0.78%	1.58%	3.49%
WM	11.40%	9.56%	11.10%	0.98%	2.65%	1.62%	2.53%	1.08%	1.81%	3.31%
EM	10.60%	10.34%	14.00%	1.04%	2.62%	1.98%	2.39%	1.12%	1.53%	3.77%
NE	10.20%	9.50%	12.70%	0.66%	2.91%	2.21%	2.22%	1.05%	1.80%	2.52%
W	9.80%	8.91%	12.60%	0.72%	2.95%	1.88%	2.60%	0.90%	2.00%	2.55%
NI	8.80%	8.93%	13.20%	0.51%	n/a	2.70%	2.68%	0.69%		2.62%

Table 17: Tax revenue as a proportion of GDP

	Income tax	National Insurance	VAT	Stamp duty and capital gains	Council tax	Alcohol and tobacco	Fuel Duty	Environmental levies on business	Business rates	Corporation tax
LDN	10.00%	5.65%	4.60%	1.52%	0.88%	0.38%	0.37%	0.48%	1.64%	3.79%
SE	11.70%	7.17%	7.20%	1.44%	1.89%	0.91%	1.43%	0.63%	1.16%	2.58%
EoE	10.80%	7.50%	7.60%	1.17%	1.97%	1.06%	1.67%	0.46%	1.19%	2.27%
S	7.90%	6.78%	7.80%	0.59%	1.51%	1.33%	1.48%	0.99%	1.63%	2.15%
SW	8.50%	6.22%	8.10%	1.14%	2.20%	1.02%	1.61%	0.58%	1.17%	2.59%
EM	8.20%	6.41%	8.70%	0.73%	2.03%	1.39%	1.85%	0.79%	1.19%	2.34%
WM	7.70%	6.43%	7.40%	0.66%	1.78%	1.09%	1.70%	0.72%	1.22%	2.23%
NW	7.40%	6.11%	7.70%	0.63%	1.78%	1.26%	1.46%	0.61%	1.23%	2.15%
YATH	7.40%	6.90%	8.20%	0.69%	1.90%	1.31%	1.68%	0.59%	1.29%	2.13%
NE	7.30%	6.85%	9.10%	0.47%	2.10%	1.60%	1.60%	0.76%	1.30%	1.82%
W	7.00%	6.39%	9.00%	0.52%	2.11%	1.35%	1.86%	0.64%	1.44%	1.83%
NI	5.90%	5.96%	8.80%	0.34%	n/a	1.80%	1.79%	0.46%		1.75%

The regional impact of different tax changes

The section above provided a description of the pattern of receipts from each of the different main taxes *in total*. But many of these taxes have different rates and thresholds, and changing such thresholds might have quite a different regional effect than the *average* raised by the tax as a whole. For example, raising the starting threshold for income tax or national insurance would have quite a different regional distribution than cutting the top rate. Likewise changing the top or bottom rates of council tax would have very different geographical effects.

This chapter uses new modelling to explore the potential impact of different tax policies on different parts of the UK, focused primarily on personal, corporate and consumer taxes.

1. Income tax

As we saw in Chapter 1, in total, income tax payments are highest in London and the South East both per person and as a share of income (GDHI). But what would the distribution of changes to different rates and thresholds be?

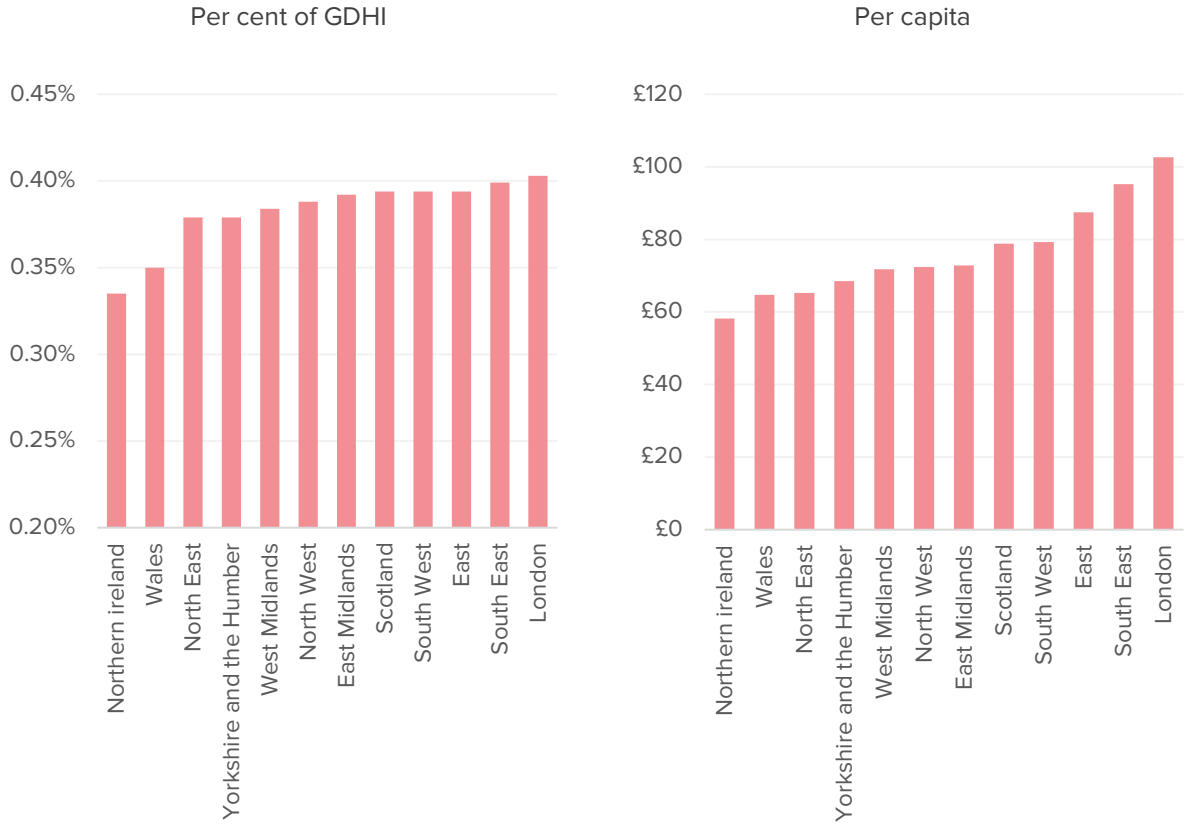
Table 18: Regional impact of changes to income tax, tax cut per head and % of GDHI

	£1000 increase in the personal allowance		1 percentage point (pc) cut in the basic rate		1pc cut in the higher rate		1pc cut in the additional rate	
	Per head	% of GDHI	Per head	% of GDHI	Per head	% of GDHI	Per head	% of GDHI
London	£102.25	0.35%	£102.67	0.35%	£38.84	0.13%	£41.52	0.14%
South East	£101.95	0.42%	£95.23	0.39%	£29.72	0.12%	£20.13	0.08%
East of England	£98.60	0.44%	£87.45	0.39%	£22.77	0.10%	£13.12	0.06%
South West	£102.07	0.49%	£79.24	0.38%	£14.11	0.07%	£5.27	0.03%
Scotland	£95.68	0.49%	£78.82	0.40%	£14.31	0.07%	£4.24	0.02%
East Midlands	£94.21	0.52%	£72.87	0.40%	£12.42	0.07%	£3.91	0.02%
North West	£93.75	0.51%	£72.37	0.39%	£11.77	0.06%	£3.87	0.02%
West Midlands	£92.18	0.51%	£71.76	0.39%	£11.58	0.06%	£3.95	0.02%
Yorkshire and the Humber	£92.05	0.52%	£68.52	0.39%	£10.13	0.06%	£3.08	0.02%
North East	£86.39	0.51%	£65.28	0.38%	£8.40	0.05%	£1.88	0.01%
Wales	£88.54	0.52%	£64.75	0.38%	£7.55	0.04%	£1.89	0.01%
Northern Ireland	£83.31	0.48%	£58.16	0.34%	£7.36	0.04%	£1.66	0.01%

The impact of a £1,000 rise in the personal allowance looks quite different if we look at it in absolute terms or as a share of income. London would see the largest per capita tax cut in absolute terms (£102), Northern Ireland the lowest (£83), and the Midlands around the national average (£93). But as a share of income such a cut would be nearly 50% larger in the north, midlands and Wales.

A one-point reduction in the basic rate of income tax would mean that London's income tax contribution, currently £5,475 per person, would fall by £103. At the other end of the scale in Northern Ireland, where receipts are equal to £1,533 per person, a 1% reduction would cut taxes by an average £58. But again, as a share of local income the gain would be larger in Northern Ireland.

Figure 17: Effect of a 1 percentage point cut in the basic rate of income tax



A cut in the additional rate would have much more concentrated effects. Regions outside the Greater South East (GSE) would see less than a £6 cut in their per capita tax contribution. The East of England and South East would gain an extra £13 and £20 per person, respectively. But London would see its per capita tax bill fall by £42, thirteen times higher than the non-GSE average. Again, this would only accrue to those paying the additional rate, not the average Londoner.

This is partly due to the regional distribution of high-earners, which a comparison of the top and bottom regions by income reveals. While the median weekly income in London (£699) is 32% higher than the North East (£531), at the 90th percentile London is 53% higher than the North East. We can also look at the proportion of taxpayers in each region that pay the higher rate. In the capital, 1 in 5 taxpayers earn enough to pay the higher rate. But across the North of England this figure is only 1 in 10.

2. National Insurance Contributions

National Insurance is progressive but much flatter than income tax. Employed people pay Class 1 NICs at 12% on earnings between £183 and £962 a week and an additional rate of 2% on any income above that. Self-employed people pay Class 4 NICs at 9% on profits between £9,500 and £50,000 and an additional rate of 2% on profits above that.

Reducing the Class 1 main rate of national insurance (paid by employees) by one per cent would cost £3.5 billion in total; 34% of this tax cut would accrue to London and the South East. If the main rate reduced by one per cent, London would benefit from a tax cut of £137 per employee and the South East would benefit by £120, compared to around £90 in Northern Ireland and Wales. The London-rest gap is far wider for changes in the additional rate. A one per cent cut in this top rate of NICs would, on average, reduce the tax burden by £90 per employee in London. The average outside the Greater South East is only £16 per employee.

Table 19: Cuts to employee and self-employed NICs as a % of GDHI

	1pc reduction in the Class 1 (employee) main rate	1pc reduction in the Class 1 (employee) additional rate	1pc reduction in the Class 4 (self-employed variable) main rate	1pc reduction in the Class 4 (self-employed variable) additional rate
London	0.241%	0.159%	0.024%	0.038%
South East	0.247%	0.113%	0.023%	0.019%
East of England	0.258%	0.090%	0.025%	0.017%
Scotland	0.278%	0.053%	0.019%	0.010%
East Midlands	0.261%	0.049%	0.020%	0.008%
West Midlands	0.255%	0.046%	0.019%	0.008%
North West	0.254%	0.044%	0.016%	0.008%
Yorkshire and the Humber	0.251%	0.039%	0.018%	0.008%
North East	0.259%	0.033%	0.015%	0.006%
South West	0.220%	0.043%	0.024%	0.011%
Northern Ireland	0.237%	0.025%	0.025%	0.010%
Wales	0.242%	0.028%	0.018%	0.006%
UK	0.250%	0.080%	0.021%	0.017%

Of the £297 million that it would cost to reduce the Class 4 main rate (paid by the self-employed) by one per cent, 38% of the benefit would accrue to London and the South East. The ratio of self-employed to employed taxpayers in these areas is higher: in London 19% of people are self-employed; the average for the north and midlands is 13%.

London and the South East also seem to have a greater prevalence of high-income self-employed workers. So much so that London would be the only region to benefit more - per self-employed person - from a cut in the additional rate (£112) than the main rate (£71) of national insurance contributions for the self-employed.

Figure 18: Average tax cut per employee, National Insurance

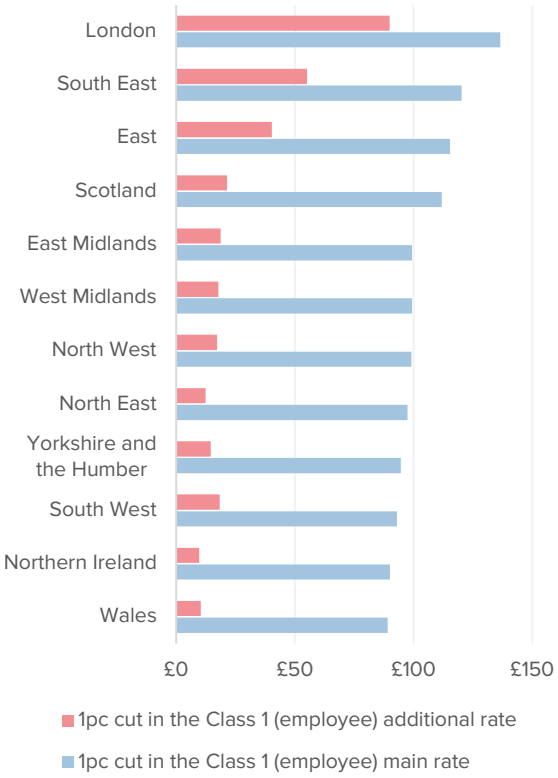
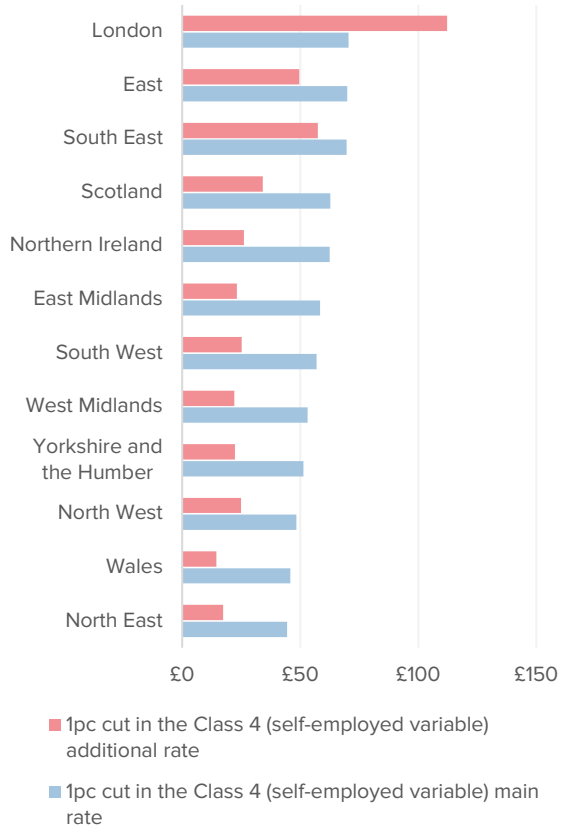


Figure 19: Average tax cut per self-employed, National Insurance



If the Class 4 additional rate fell by one per cent, London would gain £71 per self-employed person and the South East would gain £70, compared to around £45 in the North East and Wales. A one per cent cut in the top rate of NICs would reduce the average tax burden for the self-employed by £112 in London. The average outside the Greater South East is only £23 per self-employed person.

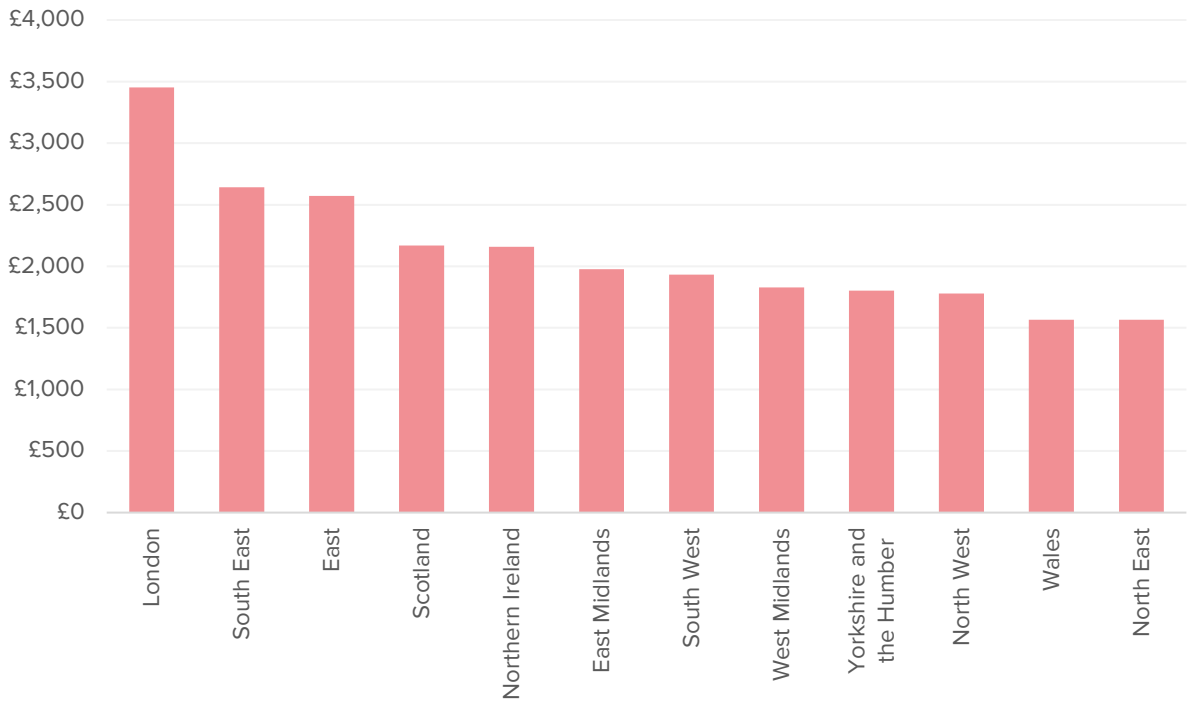
To further illustrate this London skew, we can compare the tax cut per capita that London would see with the average for regions outside London and the South East. The benefit from a one per cent reduction in the main rate in London would be 1.3 times higher than the average outside London and the South East for employees and 1.4 times higher than the non-GSE average for self-employed.

When considering a one per cent reduction in the additional rate, the tax cut per employee in London would be 4.8 times the average outside London and the South East; for self-employed, London would generate 5.8 times as much as the average for regions outside the Greater South East.

Contrary to the previous discussion of the impact of tax cuts, what would happen if we removed all National Insurance advantages to self-employment, and made everyone pay Class 1 contributions?

This tax change would raise an eye-watering £11.4bn in total. If we divide this by the number of self-employed people in the UK, it works out at £2,344 per person on average. London would bear the brunt of this tax rise, with an 11% increase in revenue raised, or £3,452 per self-employed worker. The South and East of England would see taxes increase by around £2,600 for every self-employed worker. NICs in the North East and Wales would increase by £1,565 per self-employed worker (ignoring the obvious dynamic effects).

Figure 20: Additional revenue raised from removing all National Insurance advantages from self-employment, per self-employed person

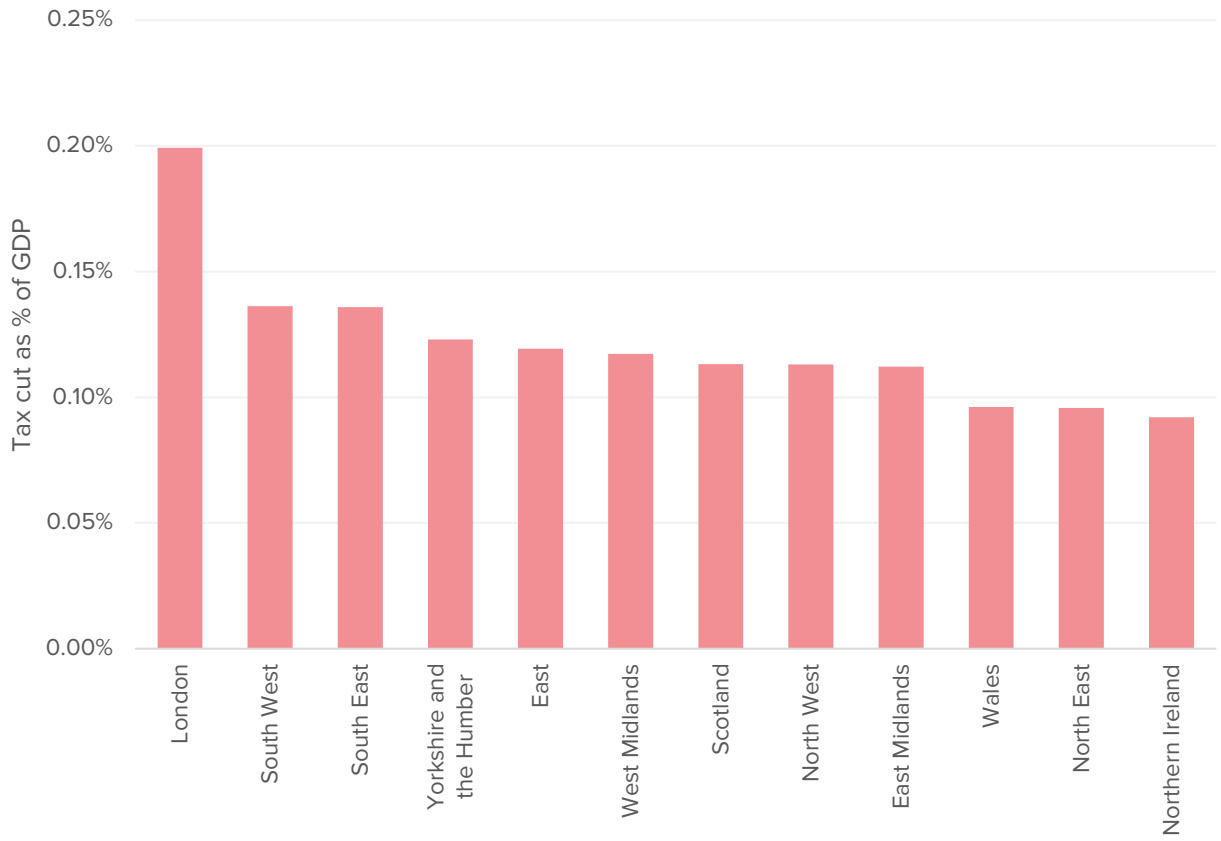


3. Corporation tax

A one percentage point cut in the corporation tax rate would cost the Treasury around £2.9 billion in total. London would benefit by £971 million, equal to 0.2% of the region's GDP. The regions that generate the lowest corporation tax (Northern Ireland, the North East, and Wales) would see a tax cut which is roughly half that as a share of GDP.

When we look at the estimated reduction in corporation tax relative to the number of businesses in each region, London shows up as an outlier. London would pay £889 less per business, more than twice the national average. After London, the economies of Scotland and the South East would pay £546 and £450 less per business, respectively. At the other end of the distribution, Wales would pay £324 less per business.

Figure 21: Regional impact of cutting corporation tax by 1 percentage point



4. Council tax

Council tax is highly regressive - at the household level and the regional level. To understand the impact of changes in council tax, we model a set of changes which alter the ratios at different bands to make council tax cheaper for less valuable houses and more expensive for more valuable homes. The current and modelled council tax ratios are presented in the table below.

Table 20: Modelled changes to council tax ratios

		Council Tax Band							
		A	B	C	D	E	F	G	H
Reducing Band A	Current ratio	**6/9**	7/9	7/9	9/9	11/9	13/9	15/9	18/9
	Modelled ratio	**5/9**	7/9	7/9	9/9	11/9	13/9	15/9	18/9
		Council Tax Band							
		A	B	C	D	E	**F**	**G**	**H**
Raising Bands F-H	Current ratio	6/9	7/9	7/9	9/9	11/9	**13/9**	**15/9**	**18/9**
	Modelled ratio	6/9	7/9	7/9	9/9	11/9	**14/9**	**16/9**	**19/9**

4.1 Reducing the Band A rate

In the first scenario, we reduce the rate for Band A properties from 6/9 of Band D to 5/9. Overall this would cost £895 million in lost revenue. But this tax cut is not distributed equally. A majority (54%) of households in the North East would see their council tax bill reduced. Across the rest of the North and Midlands, the proportion of households that would benefit ranges from 3-in-10 to 4-in-10. This is in stark contrast to London, where fewer than 1-in-20 (3.9%) of homes are in Band A.

Table 21: Impact of a rate reduction for Band A properties, by region

	% of properties in Band A	**Saving per band A property**	**Saving as % of GDHI**
North East	53.6%	£147.47	0.217%
Yorkshire and The Humber	43.0%	£146.44	0.159%
North West	41.0%	£148.34	0.150%
East Midlands	36.9%	£158.65	0.140%
West Midlands	30.4%	£143.70	0.102%
South West	17.9%	£165.66	0.063%
East of England	14.3%	£158.03	0.044%
South East	8.9%	£161.79	0.026%
London	3.9%	£124.78	0.007%
England Total	**24.4%**	**£150.84**	**0.074%**

Looking at the pattern of the two rightmost columns in Table 21, they are almost opposites. The South East has the second-lowest proportion of properties in Band A, but would see the third-largest saving per property from a reduction in the Band A rate. Band A properties in the North of England would see lower than average savings from a rate cut.

Comparing this tax cut to incomes is not straightforward, since we do not have data on GDHI by council tax band. But if we simply divide the total savings, which only Band A households receive, by the total GDHI for all households, it looks like generally lower-income regions would see a much greater benefit.

This illustrates again why it is important to view the data from multiple angles. In absolute terms, families in a Band A property in the South of England (though not London) would receive greater than average cuts to their council tax bill than families living in a Northern Band A property - because council tax is higher there. But for Northern households, the savings would represent a larger portion of total income.

4.2 Increasing the rate for Bands F to H

We also modelled an increase in the rate for properties in Bands F-H, the results of which are summarized in Table 22 below. The regional pattern of tax rises for Bands F-H matches the modelled reduction for Band A. Lower council tax bills in London mean that the increase per property and increase as a percentage of GDHI would be below the England average. But, aside from the capital, weather regions with higher incomes and more properties in the upper bands would see their tax burden increase the most.

Table 22: Impact of a rate rise for properties in Bands F-H, by region

	% of properties in Bands F-H	Increase per property	Increase as % of GDHI
South East	15.3%	£163.32	0.0443%
London	15.3%	£117.79	0.0250%
East of England	10.3%	£158.04	0.0318%
South West	8.6%	£165.93	0.0304%
West Midlands	6.4%	£146.98	0.0221%
East Midlands	5.1%	£157.42	0.0191%
North West	5.0%	£148.05	0.0183%
Yorkshire and The Humber	4.6%	£148.96	0.0174%
North East	3.0%	£149.22	0.0125%
England Total	**9.2%**	**£148.04**	**0.0273%**

5. Inheritance tax

We model two changes to inheritance tax. The first is a one per cent reduction in the rate, which would cost an estimated £4.8bn, half of which would accrue to London and the South East.

Wales, the North East and Northern Ireland would see the smallest total benefit: £99 million, £58 million and £38 million, respectively.

The second is a £100,000 increase in the inheritance tax allowance. This would cost £900 million in total. London and the South East combined would benefit by £392 million, almost twice the £211 million total tax cut in the North and Midlands.

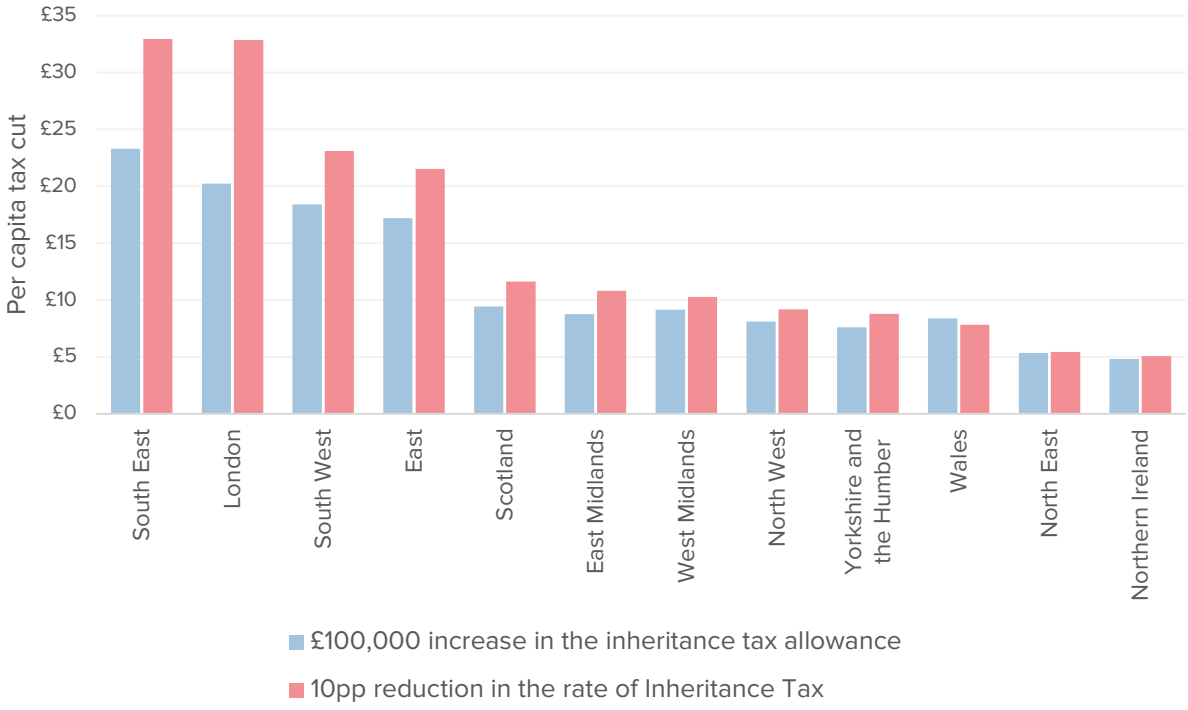
Below we compare these changes to inheritance tax on a per capita basis and as a proportion of GDHI. The numbers are of course very small, but we clearly see that the South and East of England would benefit disproportionately

Table 23: Impact of reducing inheritance tax, per head and % of GDHI

	1pp reduction in the rate of Inheritance Tax		£100,000 increase in the Inheritance Tax Allowance	
	Per head	% of GDHI	Per head	% of GDHI
South East	£3.29	0.0135%	£23.30	0.0958%
London	£3.29	0.0112%	£20.22	0.0689%
South West	£2.31	0.0111%	£18.40	0.0880%
East	£2.15	0.0097%	£17.19	0.0774%
Scotland	£1.16	0.0059%	£9.42	0.0481%
East Midlands	£1.08	0.0059%	£8.75	0.0479%
West Midlands	£1.03	0.0056%	£9.15	0.0502%
North West	£0.92	0.0050%	£8.11	0.0442%
Yorkshire and the Humber	£0.88	0.0050%	£7.62	0.0431%
Wales	£0.78	0.0046%	£8.41	0.0492%
North East	£0.55	0.0032%	£5.36	0.0315%
N. Ireland	£0.51	0.0029%	£4.82	0.0278%
UK	£1.84	0.0087%	£13.81	0.0651%

We can also look at the disparity between the region with the greatest benefit and that with the smallest benefit. Per person, cutting the rate of inheritance tax by 1 percentage point would benefit the South East six-times more than Northern Ireland. Although the South of England still benefits more per person and relative to disposable income from an increase in the inheritance tax threshold, the gap between the top and bottom region is smaller.

Fig 22: Effect of £100,000 reduction in the inheritance tax allowance and 10pp reduction in the inheritance tax rate



6. Capital gains tax

Given the regional distribution of capital gains tax receipts, with wealthier regions like the South East generating more revenue per person and relative to total income, it comes as no surprise that these same areas would benefit most from a cut in capital gains tax, or pay more if capital gains tax is increased.

Table 24 shows a clear distinction between the South and East of England and the rest of the country. The former would see around twice the per capita benefit from a £1,000 increase in both the exempt amount and a 1% reduction in the lower rate. However, the regional disparity is significantly smaller when we consider the tax cut as a proportion of income. Relative to total population, the tax cut (from a 1% reduction in the lower rate) in the South East would be 4 times higher than Northern Ireland, but only 2.9 times higher as a share of GDHI.

The differences between a 1% reduction in the lower rate and a 1% reduction in the higher rate reveal more nuance. Considering the regional impact of these two hypothetical tax cuts per head and as a share of GDHI, the South of England would remain the only place where the benefit

exceeds the UK average. But compare London to the South East and South West. A reduction in the lower rate would put the capital behind the rest of the South, but it would see the greatest benefit from a reduction in the higher rate. This implies that, not only do Londoners pay more capital gains tax in total, but this is skewed by the disproportionate presence of higher rate taxpayers.

Table 24: Modelled regional impact of changes to capital gains tax

	£1000 increase in the annual exempt amount		1pc reduction in the lower rate of Capital Gains Tax		1pc reduction in the higher rate of Capital Gains Tax		1pp reduction in the Entrepreneurs Relief rate	
	Per head	Share of GDHI (bps)	Per head	Share of GDHI (bps)	Per head	Share of GDHI (bps)	Per head	Share of GDHI (bps)
London	£1.32	0.449	£0.36	0.121	£10.51	3.578	£10.51	3.581
South East	£1.15	0.475	£0.33	0.134	£7.45	3.062	£7.23	2.972
South West	£0.98	0.469	£0.29	0.140	£4.55	2.178	£4.14	1.980
East of England	£0.83	0.373	£0.24	0.107	£4.93	2.218	£4.71	2.123
Scotland	£0.46	0.235	£0.13	0.069	£2.45	1.253	£2.30	1.174
Yorkshire and The Humber	£0.46	0.286	£0.13	0.081	£2.86	1.785	£2.76	1.724
East Midlands	£0.43	0.212	£0.12	0.061	£2.61	1.295	£2.51	1.245
West Midlands	£0.42	0.232	£0.12	0.068	£2.33	1.279	£2.20	1.207
North West	£0.41	0.221	£0.11	0.062	£2.68	1.460	£2.61	1.423
Wales	£0.37	0.216	£0.11	0.064	£1.76	1.027	£1.60	0.938
North East	£0.32	0.189	£0.09	0.056	£1.65	0.971	£1.53	0.903
Northern Ireland	£0.28	0.162	£0.08	0.047	£1.56	0.900	£1.47	0.850
United Kingdom	£0.72	0.342	£0.20	0.097	£4.60	2.177	£4.45	2.108

Note: Share of GDHI is expressed in basis points, rather than percentages

Conclusion

As we have seen, different taxes have very different regional distributions, and don't just follow levels of income in different areas.

The regional impact of taxation depends on the measurement we use, and gains look very different in absolute terms and as a share of income.

If policymakers seek tax cuts which benefit poorer regions more, the most promising candidates are the lower bands of council tax, VAT and the personal allowance in income tax.

This paper also draws attention to the place of industrial emissions levies and fuel duty in wider environmental policy. Other environment policies might have a more positive effect on poorer regions.

We hope the paper also serves as an invitation for the Treasury and ONS to look at this in more detail (with privileged access to more granular data) and give greater consideration to the spatial impact of what are often thought to be 'place-blind' taxes.

Methodology

The first chapter of this report analyses the recent history of the regional distribution of tax revenues.

- The backbone of this analysis is the ONS Country and Regional Public Sector Finances publications, including the public sector revenue datasets. The ONS has published these experimental statistics[6] since May 2017. In this report, we use the most recent version, published in December 2019, containing data from financial years ending 2000 to 2019.
- These data are combined with ONS data on regional GDP, GDHI and population to give regional tax revenue as a percentage of GDP and revenue per capita in each region, and historical figures are also inflated by the national CPI to allow for a measure adjusted for inflation to compare the real consumption cost of a given tax over time rather than the nominal money cost.
- There is an enormous amount of data contained in these publications and what they tell us about the regional distribution of economic and social activity in the UK has been vastly understudied. It would never have been possible to analyse every series in this volume and so we are also publishing Onward's manipulations of the ONS data that allow for further analyses to be undertaken starting from a more user-friendly format.
- This includes workbooks of revenue figures with sheets for each year and workbooks with sheets for each tax, as well as the equivalent workbooks showing figures as a percentage of regional GDP, per capita regional figures, figures with historical data inflated according to the National CPI, and figures with historical data inflated according to either national or regional wage growth.

The second chapter of this report uses this ONS data in combination with other sources to estimate marginal tax changes by region from a number of policy proposals.

- Using a mixture of private microdata, administrative survey data or administrative meso level data inferences can be made about the micro level distribution of economic activity and the change in tax revenues for each region after the policy changes. These data sources are calibrated to match the ONS data described above for totals for FYE2019.
- This calibration process requires two assumptions to be made. The first is that the regional economic structure is broadly unchanged (or specially is not changed in any systematic way that would affect our conclusions) between the year from which the data is drawn and the calibration year of FYE2019. This is a minimal assumption as the most recent available data was used such that the longest gap between the data year and the calibration year is 2 financial years and there is little to suggest major regional changes in the economy over this period that would affect the analysis.

- The second assumption is that the feedthrough from liability to receipts is not affected by the difference between the calibration and data years. This is because some of the data sources and specially those looking at underlying micro-level economic activity give results for tax revenue on a liability basis and by calibrating with the ONS data this means an adjustment from liability to receipts. This adjustment takes into account factors such as delays to submission of tax returns and non-payment and so any changes in the structure of these factors would impact on the accuracy of results. There is again little to suggest any such changes. The year and source of each data source used are specified below.

It should also be noted that as these marginal tax revenue values are calculated simply by applying the algorithms that make up tax calculations to units of economic activity from weighted micro-data or synthetic micro-data constructed from administrative statistics, one is assuming that there is no adjustment in the economic activity in response to a change in tax policy. This means that this analysis is a static analysis, rather than a dynamic analysis that makes attempts to take into account the behavioural response to a given policy change, such that the total change in tax revenue includes both a mechanical and a behavioural component.

This means that numbers might not be directly comparable with dynamic analyses such as those in HMRC ready reckoners and in HMRC costings. By HMRC's own admission trying to include the behavioural impact introduces "significant uncertainty around these modelling assumptions" as estimates of behavioural changes are often confounded by unobserved factors that are also influencing economic activity and tax revenue and that may be correlated with the introduction of a given policy. The purpose of this report is to highlight the regional heterogeneity in economic activity and consequently tax revenues and as far as possible the aim is to let the data speak for themselves.

The data sources we have used are as follows:

- For Income Tax and National Insurance Contributions (where the total figure includes class 1 primary contributions made by employees, class 1 secondary contributions made by employers, and class 2 and class 4 contributions made by the self-employed) the data source is the Survey of Personal Incomes Public Use Tape for 2016/17 accessed through the UK Data Service and produced by HMRC.
- For Corporation Tax the data source is FAME micro-data accessed through Bureau van Dijk, a dataset on the universe of public and private firms in the UK and Ireland including the most recent relevant financial information.
- The Survey of Personal Incomes and FAME data sources data relate to individual level economic activity and so are liability data.

- For Inheritance Tax and Capital Gains Tax the marginal distributions of the geography, size and receiver income relating to estates and capital gains were taken from HMRC publications and from this a minimal joint distribution was estimated that resulted in minimal synthetic micro-data that could be used for analysis. As these figures are produced from administrative receipts numbers in FYE 2019 there are no calibration requirements for these numbers to be consistent with the ONS country and regional public sector finances figures.
- For Council Tax, where coverage is restricted to England, the numbers of properties in each council tax band along with the rates for each band for each Lower Tier Local Authority (LTLA) for the most recent available year is taken from MHCLG's Council Tax Statistics publication. These are calibrated with the ONS country and regional public sector finances figures to account for the regional distribution of discounts and non-payment and to transfer the crude measure of liability to an accurate receipts measure. These Local Authorities are then aggregated by Region. For Westminster Parliamentary Constituency each constituency is taken as being the weighted sum of different LTLAs where the weights are the populations proportions for each LA that belong to that constituency. This population proportions are taken from the House of Commons Library.
- It should be noted that this analysis did not take into account the secondary effects of tax changes on welfare or subsidies. For example, further work would have to be undertaken to understand the impact of reducing Band A council tax on Council Tax Benefit expenditure, or on Second Home Discount subsidies, both of which are relevant to poorer regions such as the South West or North East

Endnotes

[1] Throughout this paper, we inflate tax revenue for previous years to 2019 prices using CPIH.

[2] IFS, “The effect of taxes and benefits on UK inequality”, 2019. Available at https://www.ifs.org.uk/uploads/BN249.pdf

[3] House of Commons Library. Available at http://researchbriefings.files.parliament.uk/documents/SN01013/SN01013.pdf

[4] Office for National Statistics. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2018

[5] Office for National Statistics. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/bulletins/opinionsandlifestylesurveyadultdrinkinghabitsingreatbritain/2017

[6] About which the ONS says: "It should be emphasised that an Experimental Statistics label does not mean that the statistics are of low quality, it only signifies that the statistics are novel and still being developed.”

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